

RAMSEY COUNTY  
DEPARTMENT OF PUBLIC WORKS  
CONSTRUCTION PLAN: FOR GRADING, AGGREGATE  
BASE, BITUMINOUS BASE AND SURFACING, AND  
STORM SEWER.

COUNTY ROAD "J"

BETWEEN: BRIDGE 9606 (OVER I35W) AND BRIDGE 2310  
(OVER RICE CREEK)  
FROM: A POINT 330 FEET EAST OF THE NORTHWEST CORNER  
OF SECTION 4 T.30N., R.23W.  
TO: A POINT 1161.5 FEET EAST OF THE NORTHWEST CORNER  
OF SECTION 3 T.30N., R.23W.  
S.A.P. 02-632-03 ANOKA COUNTY  
S.A.P. 62-601-01 RAMSEY COUNTY  
ROAD ACCOUNT NO. 47311

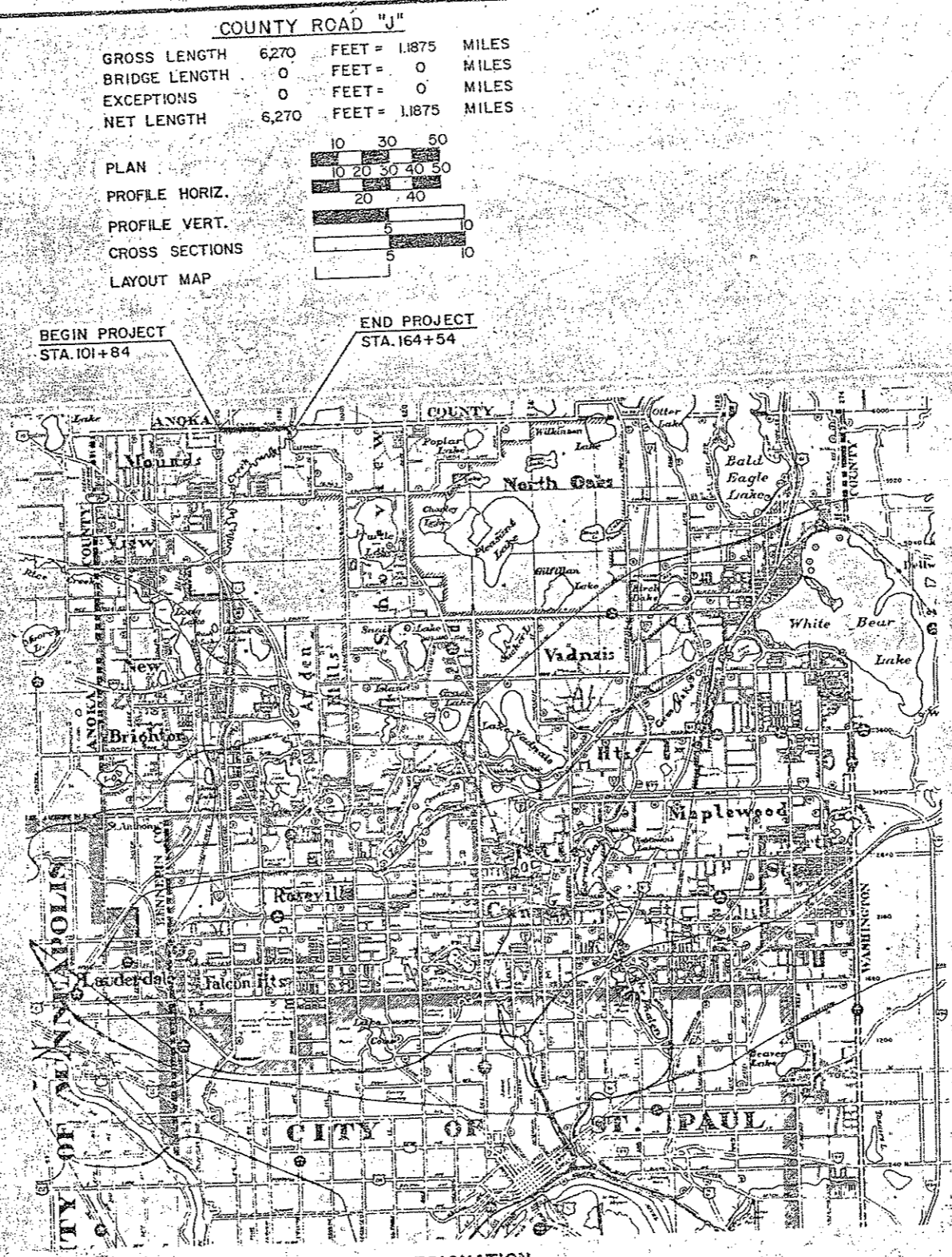
THIS PLAN SUBJECT TO MINOR REVISIONS  
6-14-87 B.J.

SHEET NO.	INDEX	DESCRIPTION
1		TITLE SHEET
2-3		ESTIMATED QUANTITIES, NOTES
4		TYPICAL SECTIONS
5-6		DETAILS
7		REMOVALS, STANDARD DETAIL PLATES & CLEAR & GRAD
7A		PLANTING DETAIL
8-9		EXISTING & PROPOSED DRAINAGE CHARTS
10-21		PLAN & PROFILE
22-67		CROSS SECTIONS

THIS PLAN CONTAINS 71 SHEETS

DESIGN SQUAD: R.J. OLSEN DATE: 4-85  
DRAWN BY: R.J.D. & B.J.J. DATE: 5-85  
CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
DATE: 4-13-87 REG. NO. 14257 ENGR. David C. Blom  
RECOMMENDED FOR APPROVAL: \_\_\_\_\_ DATE: 4/11/87  
APPROVED: \_\_\_\_\_ CHAIR OF THE RAMSEY COUNTY BOARD  
RECOMMENDED FOR APPROVAL: DES DATE: 4/12/87  
APPROVED: \_\_\_\_\_ ANOKA COUNTY ENGINEER  
RECOMMENDED FOR APPROVAL: \_\_\_\_\_ DATE: 4/12/87  
APPROVED: \_\_\_\_\_ CITY OF SHOREVIEW  
RECOMMENDED FOR APPROVAL: RHP DATE: 4-13-87  
APPROVED: \_\_\_\_\_ CITY OF BLAINE  
RECOMMENDED FOR APPROVAL: DLR DATE: 4-13-87  
MINNESOTA DEPARTMENT OF TRANSPORTATION  
RECOMMENDED FOR APPROVAL: \_\_\_\_\_ DATE: 7/1/87  
APPROVED: \_\_\_\_\_ DISTRICT STATE ENGINEER  
APPROVED: \_\_\_\_\_ DATE: 6/1/87  
APPROVAL: \_\_\_\_\_ STATE AND ENGINEER DATE: 7/1/87

PLAN REVISIONS		
DATE	SHEET NO.	BY
0-15-86	B.W. U. & M.	B.J.
0-17-86	KEBEC & VALTA SS	B.J.
3-25-87	CHGS. 15-19 & X-SECTIONS	B.J.
5-4-87	WILLIAMS PAVING TRAC	D.M., B.J.
	REVISION	



COUNTY ROAD "J"		
GROSS LENGTH	6,270	FEET = 1,187.5 MILES
BRIDGE LENGTH	0	FEET = 0 MILES
EXCEPTIONS	0	FEET = 0 MILES
NET LENGTH	6,270	FEET = 1,187.5 MILES

PLAN  
PROFILE HORIZ.  
PROFILE VERT.  
CROSS SECTIONS  
LAYOUT MAP

	DESIGN DESIGNATION		
	1-35W TO NAPLES ST.	NAPLES ST. TO LEXINGTON AVE.	LEXINGTON AVE.
COUNTY ROAD "J"			
ADT (CURRENT YEAR) 1985	11,400	5,300	5,900
ADT (FUTURE YEAR) 2005	15,000	8,000	9,500
E'N20 20 YEAR	2,553,112	1,334,671	1,519,043
DESIGN LOAD	10 TON	10 TON	10 TON
STABILOMETER R VALUE	50	50	50
DESIGN SPEED	40 MPH	40 MPH	40 MPH
DESIGN HOUR VOLUME	1500	800	800
DIRECTIONAL DISTRIBUTION	50-50	50-50	50-50
HCA/DI	6 %	6 %	6 %

DESIGN SPEED BASED ON STOPPING SIGHT DISTANCE  
3.5' HEIGHT OF EYE, 0.5' HEIGHT OF OBJECT.

PLANS SYMBOLS

STATE LINE	----
COUNTY LINE	-----
TOWNSHIP OR RANGE LINE	- - - - -
SECTION LINE	-----
SIXTEENTH LINE	-----
RIGHT OF WAY LINE	-----
PRESENT POINT OF WAY LINE	-----
CONTACT OF ACCESS LINE	-----
PROPERTY LINE (Except Lane Lines)	-----
VACATED PLATTED PROPERTY	-----
CORPORATE OR CITY LIMITS	-----
TRUNK HIGHWAY CENTER LINE	-----
RETAINING WALL	-----
RAILROAD	-----
RAILROAD LIGHT OF WAY LINE	-----
RIVER OR CREEK	-----
DRY DITCH	-----
DRAINAGE DITCH	-----
DRAIN TILE	-----
CAULVERT	-----
DRAIN INLET	-----
BARBED WIRE FENCE	-----
WOVEN WIRE FENCE	-----
CHAIN LINK FENCE	-----
RAILROAD SNOW FENCE	-----
SIDING WALL OR FENCE	-----
MEDGE	-----
RAILROAD CROSSING SIGN	-----
RAILROAD CROSSING SIGN	-----
ELECTRIC WARNING SIGN	-----
CROSSING DATE	-----
MEANDER CORNER	-----
SLOPE EASEMENT	-----

UTILITIES SYMBOLS

POWER POLE LINE	-----
TELEPHONE OR TELEGRAPH POLE LINE	-----
JOINT TELEPHONE AND POWER POLE OR TELEPHONE POLES	-----
ANCHOR	-----
STEEL TOWER	-----
STREET LIGHT	-----
POLYSTYRENE TELEPHONE CABLE TERMINAL	-----
GAS MAIN	-----
WATER MAIN	-----

SEE TECH MANUAL FOR ADDITIONAL SYMBOLS

PIT DATA

PIT NO.	Located in Dead Haul
PIT NO.	Located in Dead Haul

GOVERNING SPECIFICATIONS  
THE 1983 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.



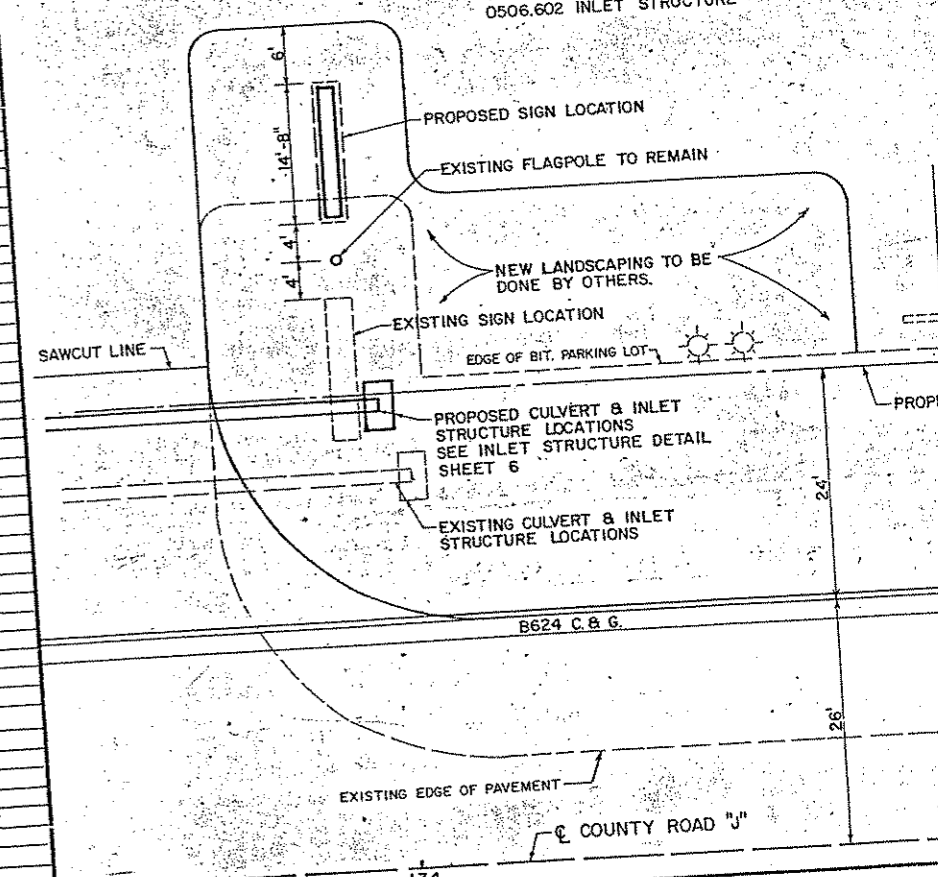
FURNISH & PLANT SHADE TREES AT THE APPROXIMATE LOCATIONS OF THE ELMS REMOVED BY CONSTRUCTION BETWEEN STATIONS 142 AND 157 RIGHT SIDE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

SILT FENCE WILL BE INSTALLED AT ALL CATCH BASIN INLETS AND OTHER AREAS AS DIRECTED BY THE ENGINEER.

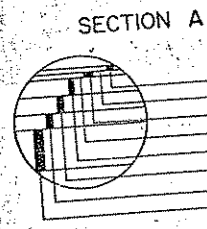
TO MEET CERTAIN CONDITION OF PHASING, TRAFFIC CONTROL, ETC., THE CONTRACTOR MAY HAVE TO DOUBLE HANDLE AND STOCKPILE MATERIAL OUTSIDE THE RIGHT-OF-WAY FOR FUTURE USE. ALL COSTS INCURRED BY THE CONTRACTOR IN EXCAVATING, PLACING, AND TRANSPORTING THIS MATERIAL SHALL BE INCLUDED IN THE PRICE BID FOR ITEM NO. 2105.501, COMMON EXCAVATION.

STATEMENT OF ESTIMATED QUANTITIES				ANOKA COUNTY S.A.P. 02-632-03		RAMSEY COUNTY S.A.P. 62-601-01		STORM SEWER		
ITEM NO.	ITEM	UNIT	TOTAL ESTIMATED	TOTAL FINAL	NON-PARTICIPATING		PARTICIPATING		ESTIMATED QUANTITIES	FINAL QUANTITIES
					ESTIMATED QUANTITIES	FINAL QUANTITIES	ESTIMATED QUANTITIES	FINAL QUANTITIES		
2571.501	PINE, AUSTRIAN 5' HI B & B	TREE	3							
2571.502	ASH, GREEN 2.5" CAL. B & B	TREE	3							
2571.503	MAPLE, AMUR 7' HI B & B	TREE	3							
2571.503	OLIVE, RUSSIAN 5' HI B & B	S.Y.	169							
2511.515	GEOTEXTILE FABRIC TYPE III	EACH	2							
2501.525	44" SPAN RC PIPE-ARCH APRON	LF	426							
2503.621	44" SPAN RC PIPE-ARCH SEWER CLASS IIA	EACH	2							
2506.508	CONSTRUCT MANHOLE DESIGN 60-4020	EACH	1					400		
2506.508	CONSTRUCT MANHOLE DESIGN 66-4020	EACH	1							
2506.508	CONSTRUCT MANHOLE DESIGN 78-4020	EACH	1							
2557.501	WIRE FENCE DESIGN 32V-9322	LF	400							
2557.501	CHAIN LINK FENCE DESIGN 60V-9322	LF	377							
(14) 0504.602	ADJUST VALVE BOX	EACH	4							
0506.602	INLET STRUCTURE	EACH	1							
(10) 2501.511	18" C.M. PIPE CULVERT	LF	158							
(14) 2501.511	48" C.M. PIPE CULVERT	LF	44							
2501.515	15" R.C. PIPE CULVERT	LF	81							
(10) 2501.515	18" C.M. PIPE APRONS	EACH	4							
(14) 2501.515	48" C.M. PIPE APRONS	EACH	2							
(14) 2557.517	CHAIN LINK VEHICULAR GATE - DOUBLE W/SECURITY LOCKS	EACH	1							
2501.531	30" G.S. ELL P CULVERT 1	LF	8							
2501.531	30" G.S. ELL P CULVERT 2	LF	8							
0501.602	TRASH GUARD FOR 15" R.C. APRON	EACH	1							
0501.602	TRASH GUARD FOR 24" R.C. APRON	EACH	1							
0501.602	TRASH GUARD FOR 36" R.C. APRON	EACH	1							
2502.541	3" PE CORR. PERFORATED PIPE DRAIN	LF	631							
8' DETACHED BITUMINOUS PATH (NON-PARTICIPATING)										
2211.501	AGGREGATE BASE CL. 6	TON	1401							
2331.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	47							
2331.508	WEARING COURSE MIXTURE	TON	436							
2331.510	BINDER COURSE MIXTURE	TON	436							
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL	199							

3701 CO. RD. "J"  
SIGN & INLET STRUCTURE RELOCATION DETAILS  
PAID FOR AS ITEM: 2104.523 SALVAGE ELECTRIC SIGN  
0412.602 INSTALL ELECTRIC SIGN  
0506.602 INLET STRUCTURE



SIGN & INLET STRUCTURE LOCATION  
ESTIMATED QUANTITIES (CONT.)

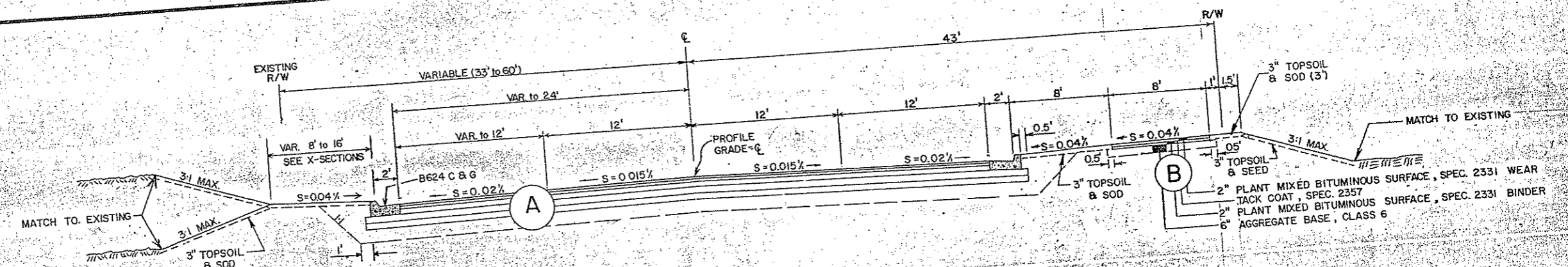


PLANT MIXED BITUMINOUS SURFACE, SPEC. 2361 WEAR  
 TACK COAT, SPEC. 2357  
 PLANT MIXED BITUMINOUS SURFACE, SPEC. 2331 BINDER  
 TACK COAT, SPEC. 2357  
 PLANT MIXED BITUMINOUS SURFACE, SPEC. 2331 BASE  
 AGGREGATE BASE, CLASS 6  
 AGGREGATE BASE, CLASS 4  
 SUBCUT FOR UNIFORMITY & COMPACTION  
 STA. 115+00 TO STA. 118+50  
 BACKFILL WITH GRANULAR MATERIAL FROM EXCAVATION

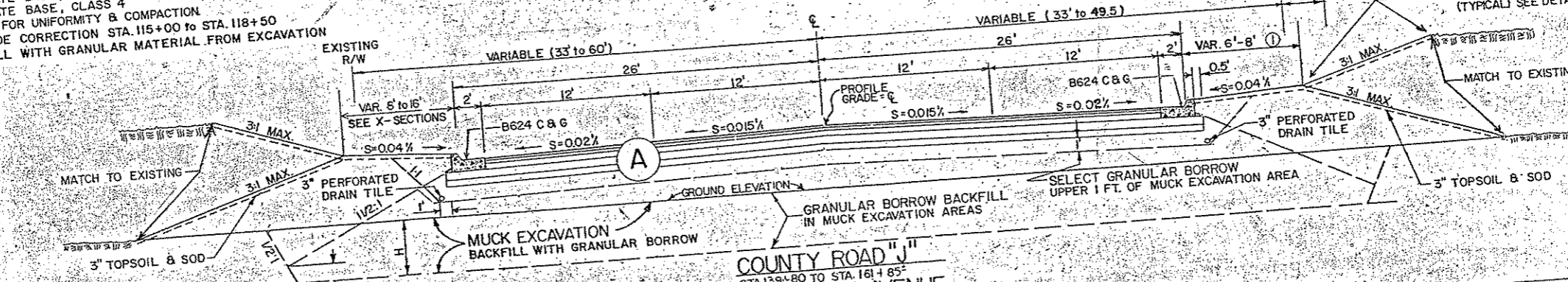
3" PERFORATED PIPE DRAIN  
 LEXINGTON AVENUE  
 STA. 514+27 TO STA. 517+30

3" PERFORATED PIPE DRAIN  
 LEXINGTON AVENUE  
 STA. 514+27 TO STA. 517+55

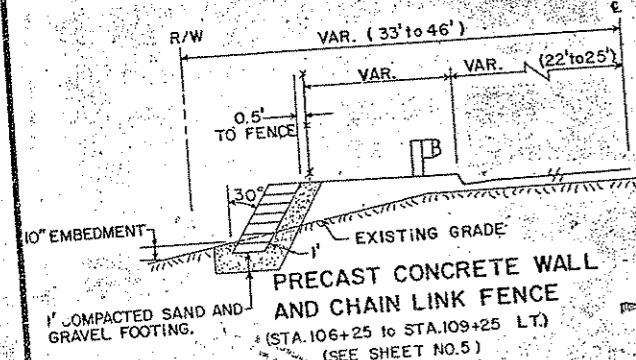
BOULEVARD RT.  
 ① 7' STA. 141+50 TO STA. 154+20  
 STA. 158+20 TO STA. 160+25  
 6' STA. 154+20 TO STA. 158+20  
 8' ALL OTHER LOCATIONS



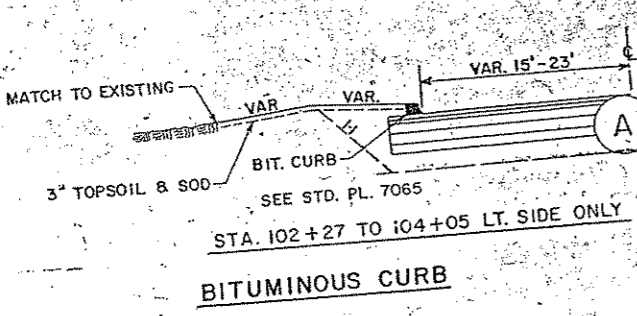
COUNTY ROAD "J"  
 STA. 103+69 TO STA. 139+80



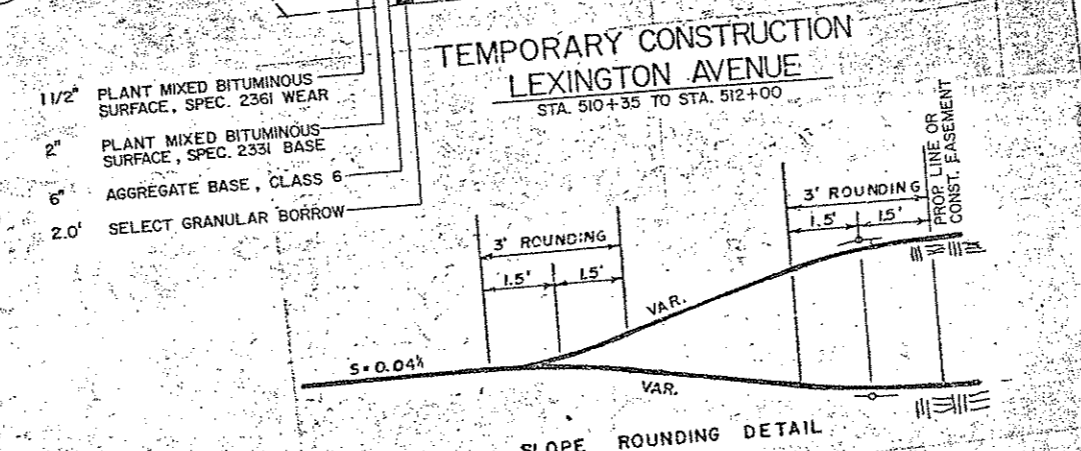
COUNTY ROAD "J"  
 STA. 139+80 TO STA. 161+85  
 LEXINGTON AVENUE  
 STA. 512+00 TO STA. 520+50±



PRECAST CONCRETE WALL  
 AND CHAIN LINK FENCE  
 (STA. 106+25 TO STA. 109+25 LT.)  
 (SEE SHEET NO. 5)



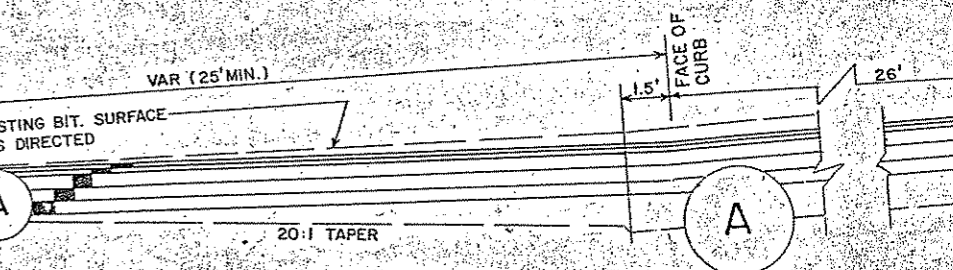
BITUMINOUS CURB  
 STA. 102+27 TO 104+05 LT. SIDE ONLY



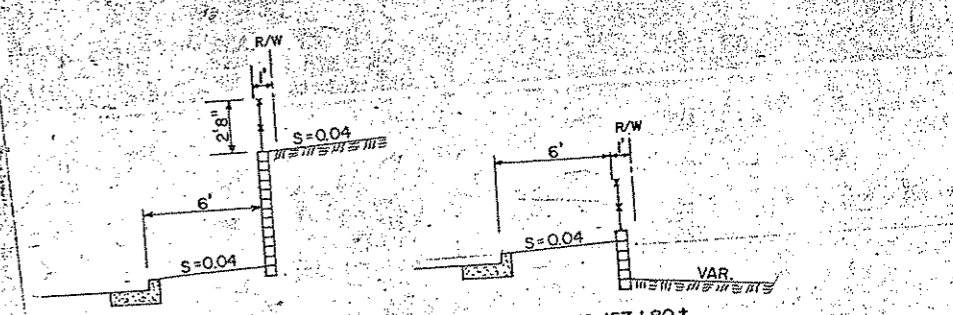
TEMPORARY CONSTRUCTION  
 LEXINGTON AVENUE  
 STA. 510+35 TO STA. 512+00

1 1/2" PLANT MIXED BITUMINOUS SURFACE, SPEC. 2361 WEAR  
 2" PLANT MIXED BITUMINOUS SURFACE, SPEC. 2331 BASE  
 6" AGGREGATE BASE, CLASS 6  
 2.0' SELECT GRANULAR BORROW

SLOPE ROUNDING DETAIL



TYPICAL SIDE STREET APPROACH



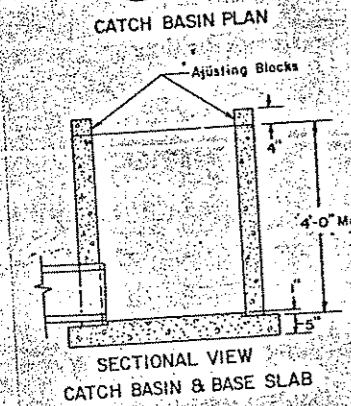
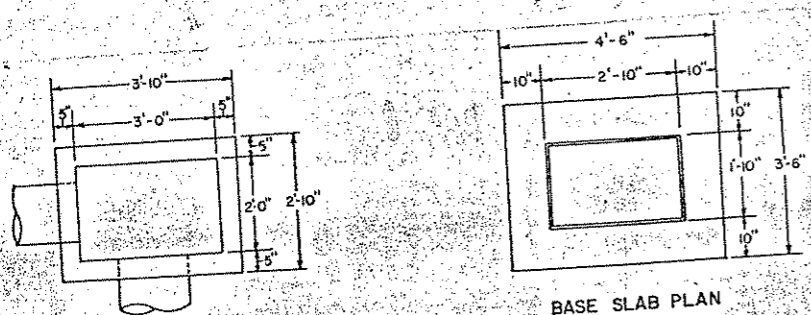
TIMBER WALL TYPICAL SECTIONS  
 (SEE DETAILS SHEET NO. 5)

TYPICAL SECTIONS

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
 DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_

S.A.P. NO. 02-632-03; S.A.P. NO. 62 601 01

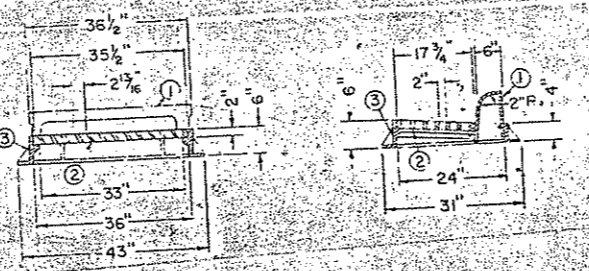
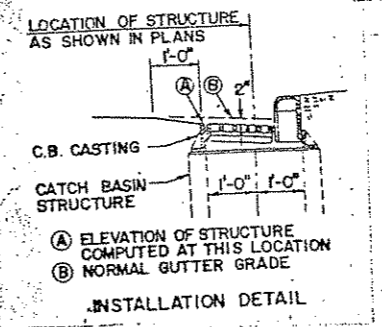
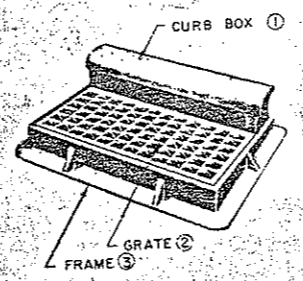
Sheet No. 4 of 67 Sheets



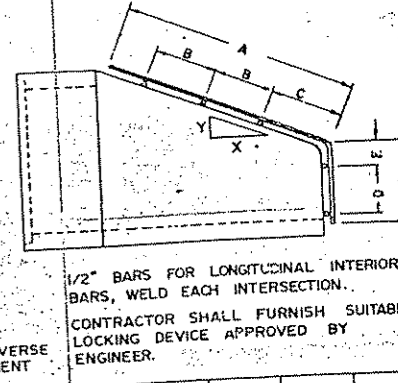
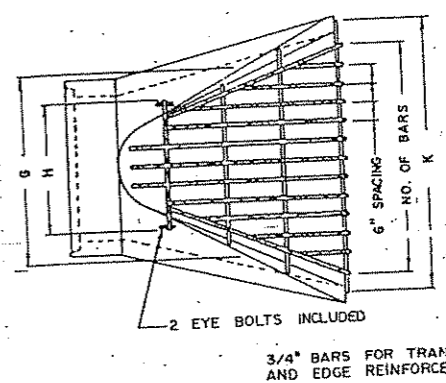
- NOTES:**
1. TO BE USED WITH NEENAH R-3067-L OR EQUAL.
  2. PIPE CUT-OUTS TO BE LOCATED WHERE REQUIRED.
  3. ALTERNATE CAST-IN-PLACE BASE SLAB CAN BE USED.
  4. INSTALL AS PER MN/DOT STD. PLATE NO. 7111
  5. REINFORCING: SINGLE LINE STEEL WIRE FABRIC, WALL = W3.5 X W3.0 HAVING A AREA OF NOT LESS THAN .21 SQ. IN. PER. FOOT OF HEIGHT. BASE = W4.0 X W4.0 HAVING A AREA OF NOT LESS THAN .16 SQ. IN. PER. FOOT OF HEIGHT

### CASTING ASSEMBLY (FOR DESIGN SPECIAL 2 CATCH BASIN)

- NOTES:**
1. MATERIALS: CAST GRAY IRON, CLASS 30, MN/DOT SPEC. REFERENCE 3321
  2. CURB BOX HEIGHT SHALL BE ADJUSTABLE 6" TO 9"
  3. SEE CATCH BASIN-DESIGN SPECIAL 2 DETAIL FOR CASTING INSTALLATION DETAIL.

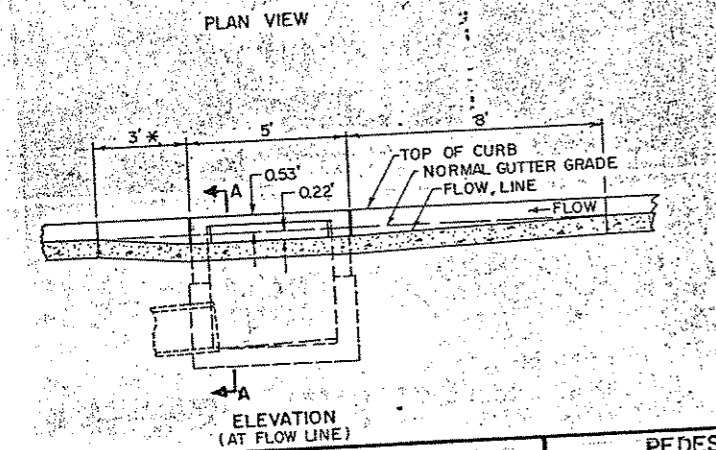
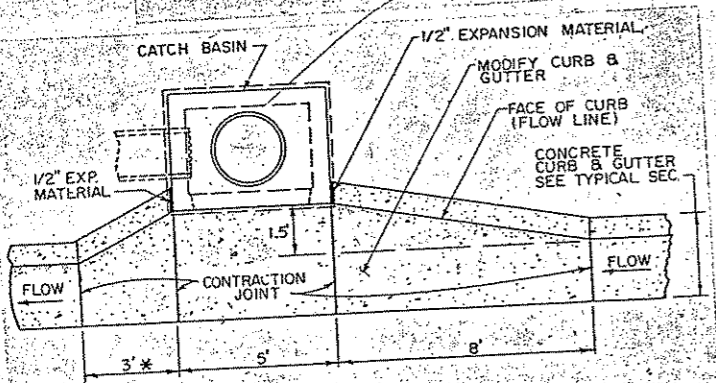


### TRASH GUARD (GALVANIZED) (FOR CONCRETE APRON)

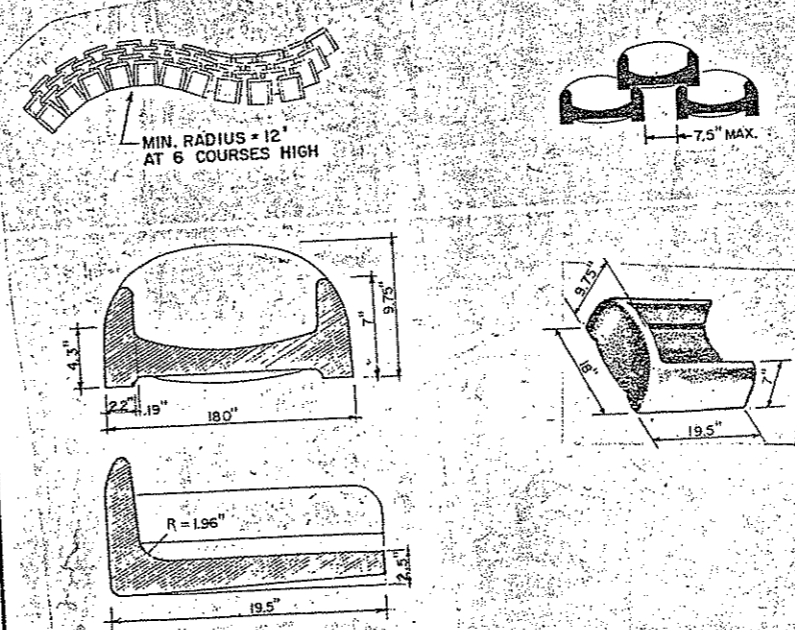
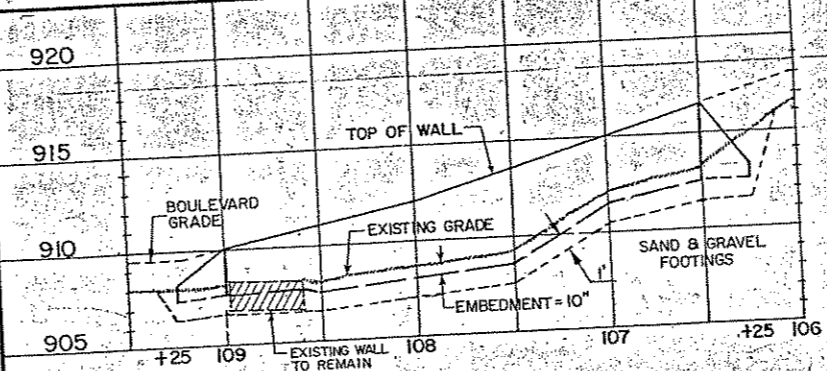
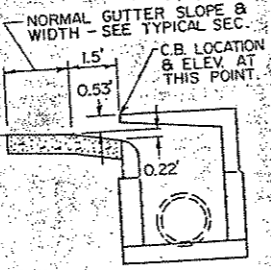


SIZE	NO. OF BARS	SLOPE	A.	B.	C.	D.	E.	F.	G.	H.	K.
12"	5	3 to 1	24	10	10	5	2	8	24		30
15"	6	"	24	10	10	6	2	10	26		34
18"	7	"	24	10	10	6	3	12	28		40
21"	8	"	36	16	16	7	3	12	34		50
24"	9	"	44	20	20	10	4	16	36		52
27"	10	"	50	23	23	10	4	16	38		58
30"	11	"	56	25	25	12	4	18	42		64
36"	13	"	64	30	30	12	4	18	48		76
42"	15	"	68	32	32	16	6	26	60		88
48"	16	"	76	36	36	14	10	28	62		92
54"	17	2.4 to 1	76	36	36	16	12	32	68		96

### CURB OPENING CATCH BASIN-DESIGN LP INSTALLATION DETAIL



- NOTES:**
1. \* DIMENSION SHALL BE 8" WHEN STRUCTURE INSTALLED AT LOW POINT IN GRADE
  2. CATCH BASIN - DESIGN LP - SEE MN/DOT STD. PL. NO. 4021
  3. TOP OF CATCH BASIN SHALL BE INSTALLED AT SAME SLOPE AS BLVD GRADES AND TOP OF CURB GRADE EACH SIDE OF STRUCTURE.
  4. ELEVATION OF STRUCTURE IS COMPUTED AT LOCATION SHOWN IN SEC. A-A AT C. OF C.B. OPENING.



### PRECAST CONCRETE WALL CONSTRUCTION NOTES

CONSTRUCT WALL AT STA. 106+25 TO 109+25 LT. WALL SHALL BE CONSTRUCTED OF SLOPE STONE, FABRICATED ACCORDING TO DETAILS ON THIS PLAN. COURSES OF STONE SHALL BE HORIZONTAL. FOOTING FOR WALL SHALL BE SAND AND GRAVEL FROM THE PROJECT OR BORROW.

SAND & GRAVEL SHALL BE CONSTRUCTED ACCORDING TO THE APPLICABLE PROVISIONS OF SPECIFICATION 2541.

SALVAGE AND INSTALL FENCE 2' INSIDE FACE OF WALL. SEE SHEET 3 FOR TYPICAL SECTION (0.5' TO BACK FACE).

PAYMENT SHALL BE MADE AS ITEM 0411.603 PRECAST RETAINING WALL AND PAYMENT INCLUDES SAND & GRAVEL BACKFILL.

TOPSOIL SHALL BE PLACED IN BLOCKS AS DIRECTED BY ENGINEER. PAYMENT SHALL BE MADE AS ITEM NUMBER 2105.525 TOPSOIL BORROW.

### SPECIFICATIONS

MATERIAL - PRECAST AIR-ENTRAINED CONCRETE HAVING 2500 PSI MINIMUM COMPRESSIVE STRENGTH AND MEETING ASTM SPECIFICATIONS C-150.

WEIGHT - 114.6 POUNDS

LENGTH - 19-5/8" (F-64)

WIDTH - 17-3/4" (I-48)

HEIGHT - 9-7/8" (FACE), 8" (SIDE RAILS)

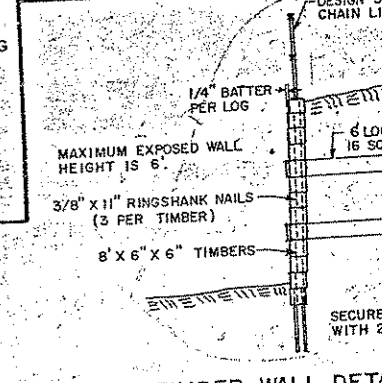
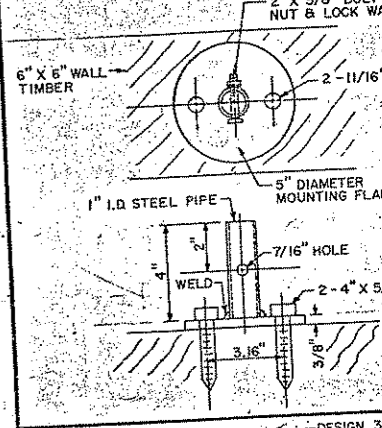
### QUANTITIES

1081 SQUARE FEET GROSS  
793 SQUARE FEET NET (EXPOSED)  
87 C.Y. SAND & GRAVEL C.Y.

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_

### TIMBER WALL - FENCE ANCHOR

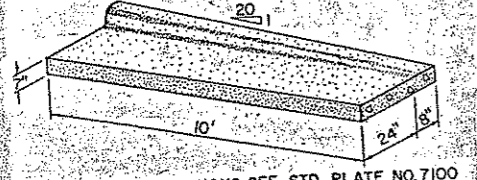


### WALL CONSTRUCTION NOTES

- ALL TIMBER SHALL BE TREATED PER MN/DOT SPECIFICATION
- LINE POSTS SHALL BE PIPE TYPE 1-1/2" I.D. PER STANDARD
- LINE POST SPACING SHALL BE 10' O.C. EXCEPT: STA. 156+5 TO 156+94 SHALL BE 9' O.C.. 43 POSTS ESTIMATED.
- CHAIN LINK FENCE SHALL BE PAID FOR BY THE LINEAL FENCE CONTRACTOR. INSTALLATION INCLUDES ALL HARDWARE NEEDED FOR INSTALLATION.

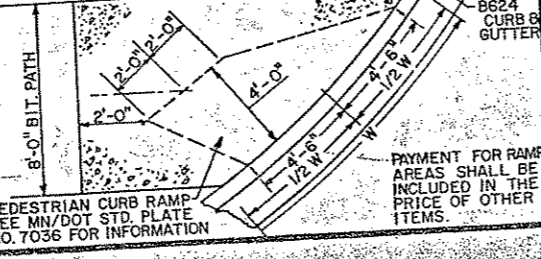
### TIMBER RETAINING WALL PRECAST RETAINING WALL CATCH BASIN DETAILS CURB & GUTTER TRANS

### TRANSITION B624 VERTICAL TAPER



FOR OTHER DIMENSIONS SEE STD. PLATE NO. 7100

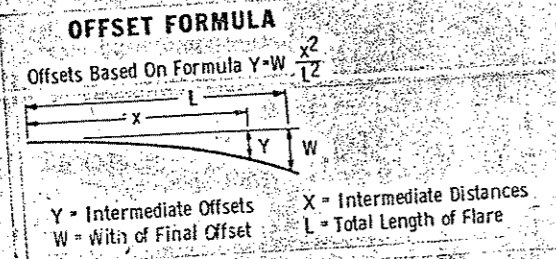
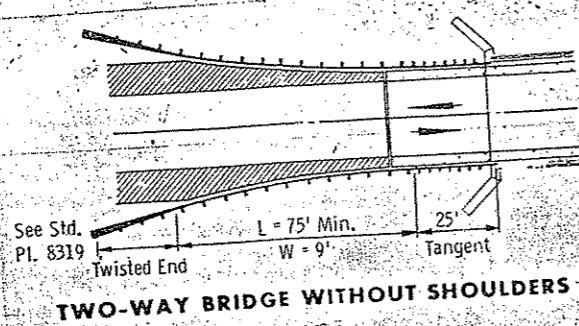
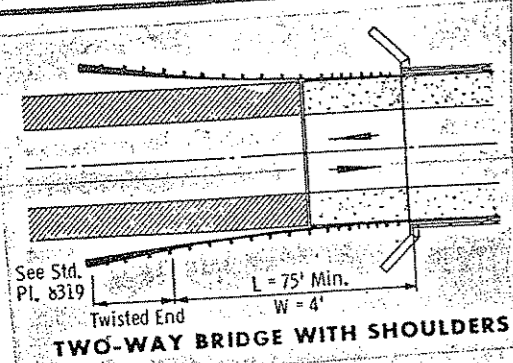
### PEDESTRIAN CURB RAMP



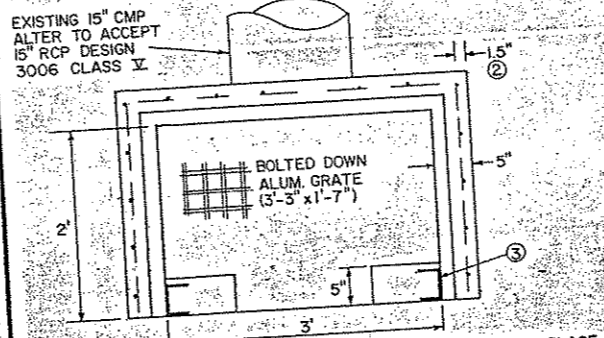
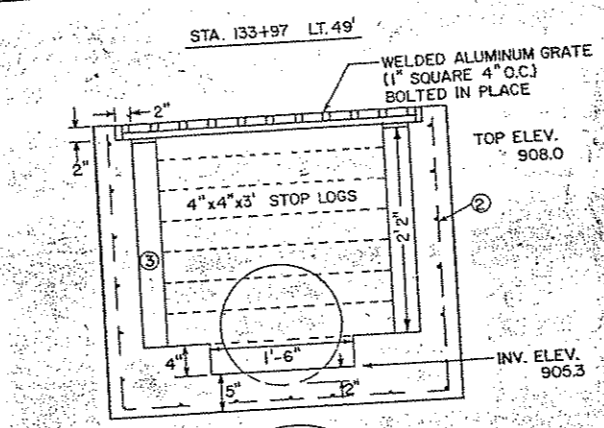
PAYMENT FOR RAMP AREAS SHALL BE INCLUDED IN THE PRICE OF OTHER ITEMS.

PEDESTRIAN CURB RAMP SEE MN/DOT STD. PLATE NO. 7036 FOR INFORMATION

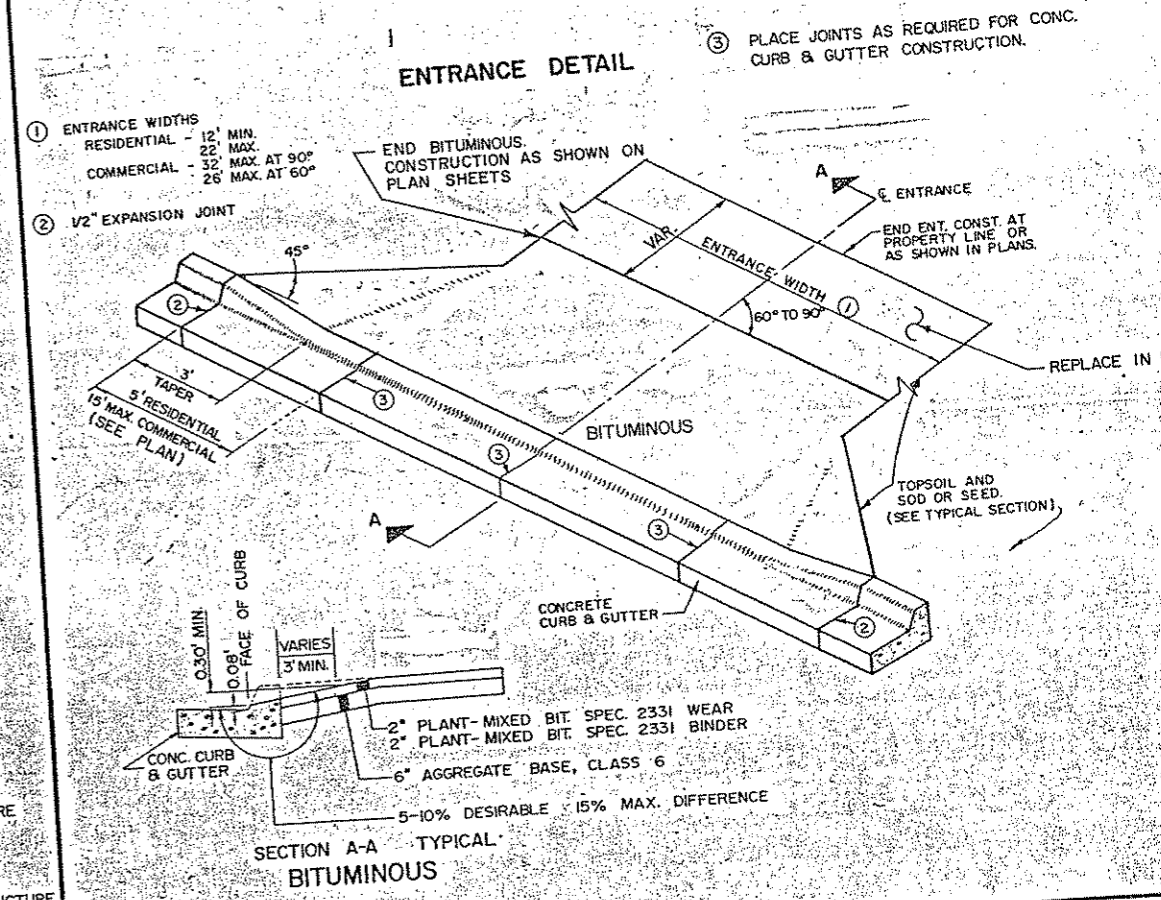
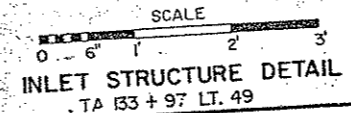
S.A.P. NO. 02-632-03; S.A.P. NO. 62-601-01



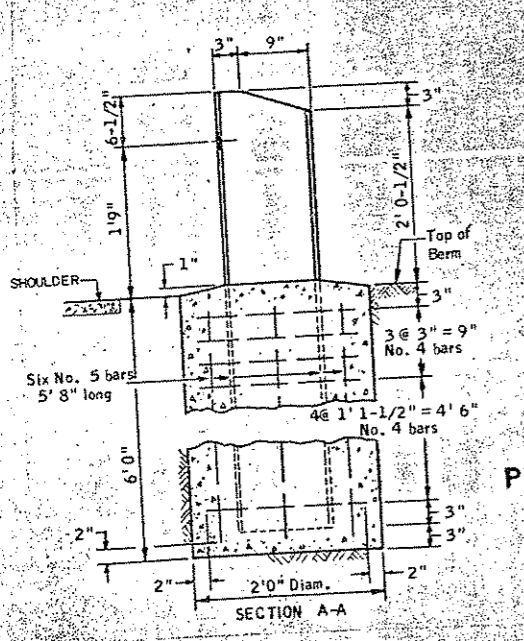
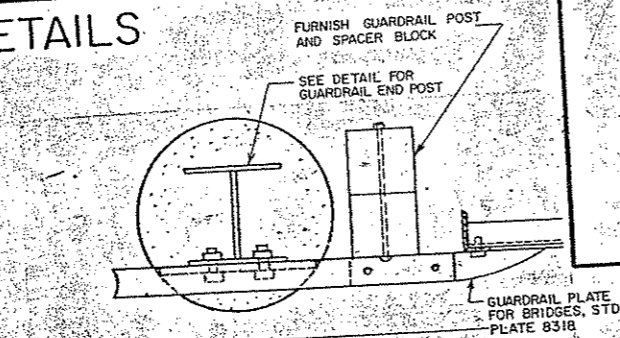
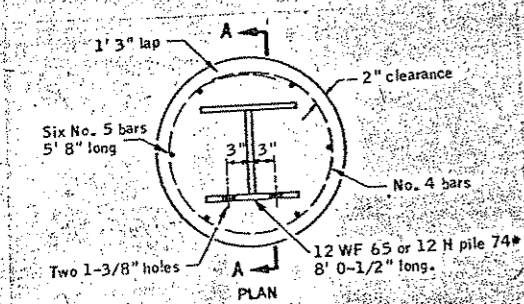
**GENERAL NOTES:**  
All guardrail posts shall be 6' 3" c. to c. except where noted.  
When the approaching flare can be buried in the backslope eliminate the twisted end and add 25' of rail.  
The required L length and W offset shall be determined in the field by the Engineer.  
See Road Design Manual Fig C 5-291.566 for offset charts.  
The latest approved Standard Plates shall apply 8307, 8316, 8317, 8319.



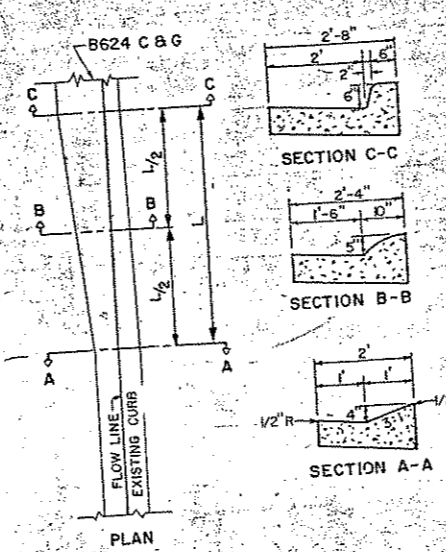
- 1 A NEW STRUCTURE MAY BE PRECAST OR CAST INPLACE. IF PRECAST, SPACE AROUND PIPE TO BE FILLED WITH MORTAR.
- 2 REINFORCING: # 3 BARS @ 6" SPACING (BOTH DIRECTIONS). WIRE MESH OF EQUIVALENT MAY BE USED IN LIEU OF # 3 BARS.
- 3 ALUMINUM CHANNEL CAST IN PLACE TO ACCOMMODATE 4"x4" STOP LOGS.
- 4 THE CONTRACTOR SHALL EITHER SALVAGE AND INSTALL STRUCTURE AT PROPOSED LOCATION OR REMOVE EXISTING AND CONSTRUCT A NEW ONE PER THIS PLAN.
- 5 PAYMENT FOR THE ABOVE WORK SHALL BE MADE AS 0506.602 INLET STRUCTURE.
- 6 INCLUDE FURNISHING NEW STOP LOGS IN ABOVE ITEM.



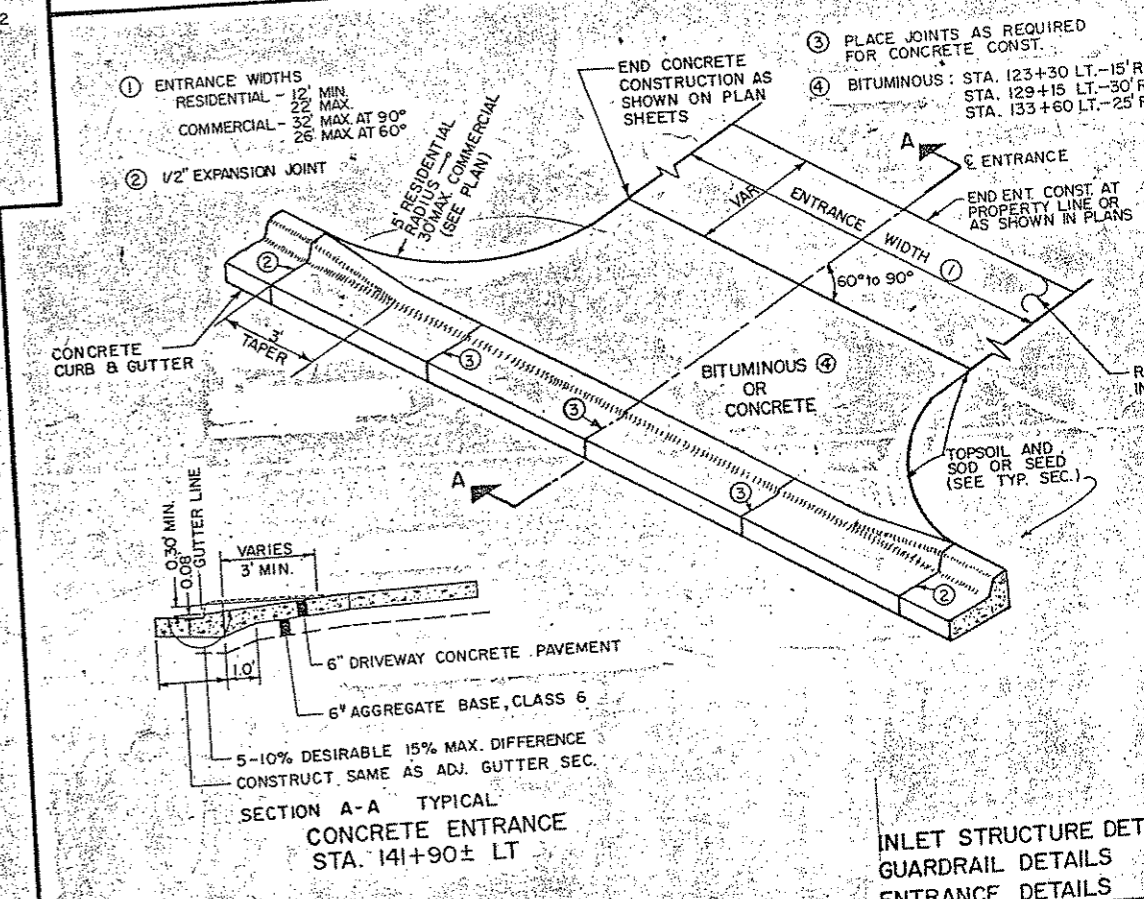
**GUARDRAIL DETAILS**



**PLATE BEAM GUARDRAIL CONNECTION TO BRIDGE**  
SPECIFICATION REFERENCE 2554  
APPROXIMATELY STA. 164+54 CO. RD. "J"



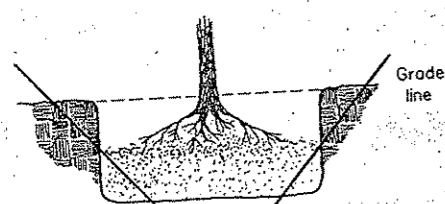
B624 C & G TRANSITION TO EXISTING CURB



INLET STRUCTURE DETAIL  
GUARDRAIL DETAILS  
ENTRANCE DETAILS

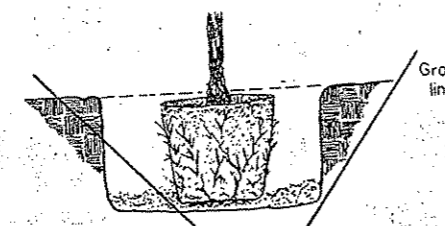


# STANDARD PLANTING DETAILS



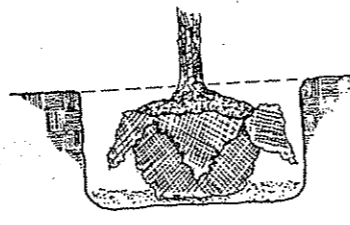
**BARE ROOT**

1. Place and tamp enough planting soil into hole so that the plant can be placed at proper depth.
2. Set plant at grade and with roots evenly distributed.
3. Complete planting operations, plumb plant and water thoroughly.



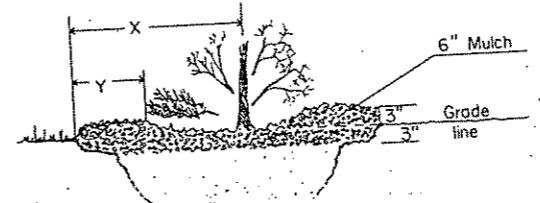
**POT / CONTAINER**

1. Place and tamp enough planting soil into hole so that plant can be set at proper depth.
2. Remove pot or container and roughen sides of root ball with a stick or something sharp to expose root ends.
3. Set plant into hole and complete planting operations, plumb plant and water thoroughly.



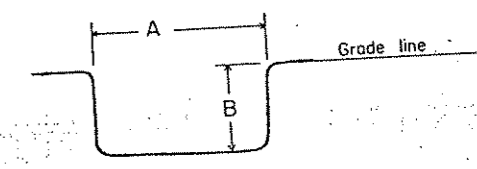
**B & B**

1. Place and tamp enough planting soil into hole so that plant can be set at proper depth, if needed.
2. Set plant into hole and remove cords and burlap to expose top of ball.
3. Complete planting operations, plumb plant and water thoroughly.



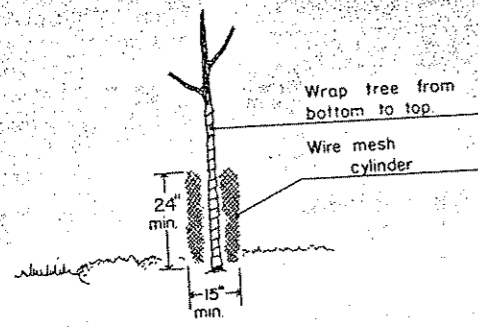
Type of plant	X (center of plant to the mulch line)	Y (outer edge of widest branches to the mulch line)
Evergreen trees & shrubs		—' minimum.
Shade trees & Half trees	2.5' minimum.	
Deciduous shrubs	—' minimum.	
Vines & Ground covers	—' minimum. or	—' minimum.

**MULCHING DETAIL**

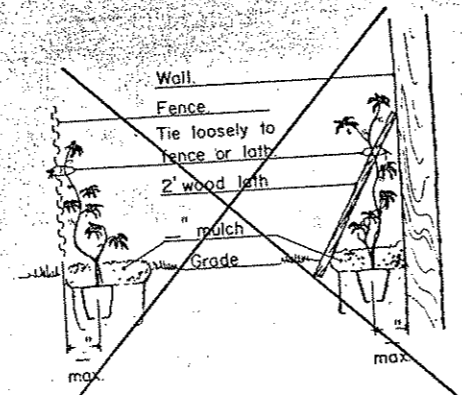


Minimum hole size A x B	Type plant	Size range
62" x 28"	B & B Shade tree	over 3" cal. thru 4" cal.
48" x 21"	B & B Shade tree.	up to 3" cal.
	B.R. Shade tree.	over 2" cal.
36" x 18"	Evergreen tree.	up to 8' hi.
	Evergreen shrub	over 30" spread.
	B.R. Shade tree	up to 2" cal.
30" x 18"	Deciduous shrubs (B.R.)	over 5' hi.
	B.R. Half tree.	over 8' hi. (1" cal.)
	Evergreen shrub	up to 30" spread.
24" x 18"	B.R. Half tree.	up to 8' hi.
	Deciduous shrub (B.R.)	up to 5' hi.
12" x 12"	Container / Potted	up to 5 gallon.
	Vine / Ground cover (potted)	up to 1 gallon.

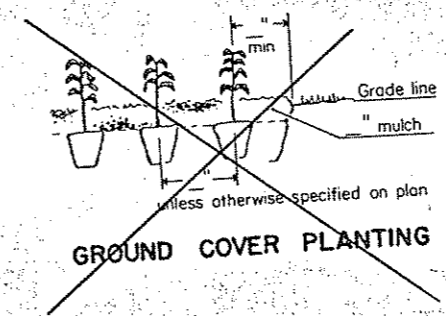
**MINIMUM HOLE SIZE**



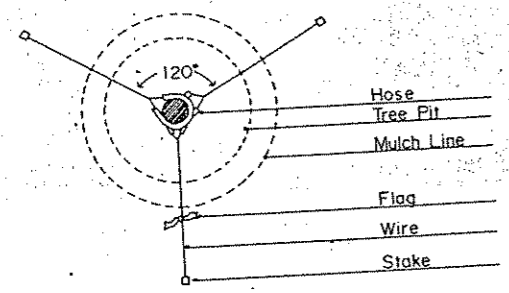
**PROTECTION DETAIL**



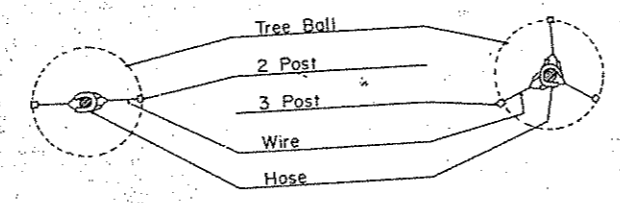
**VINE PLANTING**



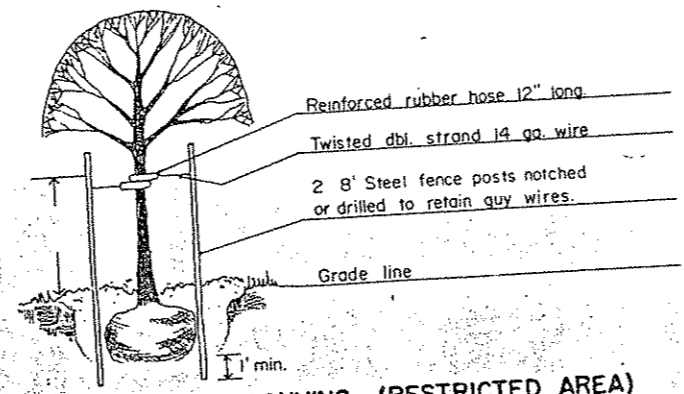
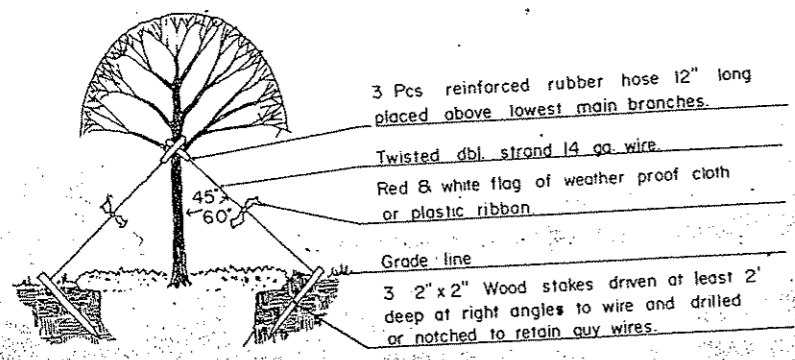
**GROUND COVER PLANTING**



**STAKING AND GUYING (NORMAL AREA)**



**STAKING AND GUYING (RESTRICTED AREA)**



**GENERAL NOTES**

- Planting Soil: Mn/Dot 2571.2C1, Mn/Dot 2571.3D, Mn/Dot 3877.2B
- Fertilizer: Mn/Dot 2571.2C3, Mn/Dot 3881
- Mulch Material: Mn/Dot 2571.2C4, Mn/Dot 2571.3H, Mn/Dot 3882
- Guying: Mn/Dot 2571.3J (Normal area)
- Wrapping: Mn/Dot 2571.2D3, Mn/Dot 2571.3J
- Rodent protection: Mn/Dot 2571.2D1 and special provisions, Mn/Dot 2571.3J
- Mass plantings: Plant spacings of ' or less shall be mass excavated and spacings of ' or less shall be continuously matched.
- Location: Shade trees will be placed at the approximate locations of the elms removed by construction between station 142 & 157 right side. Exact locations will be determined by the engineer in the field



### DRAINAGE

### CHART

FURNISH AND INSTALL PIPE SEWER  
REINFORCED CONCRETE PIPE      CORRUGATED STEEL PIPE

STATION	LOCATION	NO.	TYPE	DESIGN	CONST. HEIGHT IN FT.	CASTING ASSEMBLY	PROFILE	ELEVATION			ADJUST. CASTING ASSEMBLY	RECONSTRUCT. CATCH BASIN OR MAN-HOLD IN FT.	INSTALL. CASTING ASSEMBLY	REINFORCED CONCRETE PIPE					CORRUGATED STEEL PIPE			APRON CLASS	DRAINS TO		REMARKS				
								ORIGINAL GRATE OR RING	NEW GRATE OR RING	CB. OF MH. INVERT				12"	15"	18"	21"	24"	12"	15"	18"		STRUCTURE NO.	INVERT EL.					
								EXISTING STRUCTURES																					
<b>COUNTY RD "J"</b>																													
99+45	LT. 14	1	CB	STORM				927.54																					NOT IN PROJECT
99+45	RT. 14	2	CB	STORM				927.49																					NOT IN PROJECT
102+19	RT. 14	3	CB	STORM				927.47					922.57																DO NOT DISTURB
102+19	LT. 14	4	CB	STORM				927.50					923.00																DO NOT DISTURB
104+20	LT. 57	5	MH	TELE.				912.29																					OK
104+20	LT. 57	5	MH	TELE.			909.55	909.21	909.02																				ADJUST BY OTHERS
112+30	LT. 30	6	MH	TELE.				909.48	908.89	908.92																			ADJUST BY OTHERS
112+43	LT. 29	7	MH	TELE.				909.48	908.87	908.92																			ADJUST BY OTHERS
112+43	LT. 36	8	MH	TELE.				901.95	902.75	901.51			890.67																RECONSTRUCT
156+17	LT. 24	9	MH	SAN.				890.75	887.10				873.25																OK
159+60	RT. 85	10	MH	SAN.				889.84	888.7	889.90			860.67																OK
159+83	LT. 31	11	MH	SAN.				889.16	888.36				878.08																OK
159+88	LT. 105	12	MH	SAN.				889.09	888.0				877.04																OK
159+90	LT. 95	13	MH	SAN.				888.80	888.0				876.33																OK
159+99	LT. 73	14	MH	SAN.				888.70	885.7				879.2																ADJUST
160+02	LT. 102	15	SD	STORM				888.70	888.35				877.19																SALVAGE APRON
160+02	LT. 106	16	MH	SAN.				888.52	887.22	888.10			873.46																OK
160+41	LT. 23	17	MH	SAN.				886.29					877.93																OK
160+94	LT. 62	18	APR	STORM																									OK
<b>RENOVA ST.</b>																													
5+33	RT. 23	19	MH	SAN.				906.74					887.74																OK
6+32	LT. 17	20	CB	STORM				906.29																					OK
6+32	RT. 18	21	CB	STORM				906.36																					OK
6+53	RT. 21	22	MH	SAN.				906.61					888.21																OK
<b>LEXINGTON AVE.</b>																													
512+91	LT. 29	25	MH	SAN.				885.28	887.58																				OK
521+59	RT. 25	26	MH	SAN.				890.43	890.29	889.82			874.33																ADJUST
522+51	LT. 37	27	APR	STORM				891.69					899.43																OK
522+93	LT. 148	28	CB	STORM																									OK
522+98	LT. 30	29	SD	STORM					892.43																				OK
523+09	LT. III	30	CB	STORM																									OK
523+16	LT. 26	31	APR	STORM																									OK
<b>COUNTY RD "J"</b>																													
(CITY OF BLAINE 1987 CONSTRUCTION)																													
149+64	LT. 12	32	MH	SAN.				909.49	908.73	909.29			897.72																VERIFY IN FIELD
153+64	LT. 12	33	MH	SAN.				907.76	911.00	907.56			899.32																VERIFY IN FIELD
155+15	LT. 12	34	MH	SAN.				904.72	907.62	904.52			900.00																VERIFY IN FIELD

SALVAGE CONCRETE APRONS 1 EA.

ADJUST \_\_\_\_\_ 6 EA.  
RECONSTRUCT \_\_\_\_\_ 7 L.F.  
INSTALL CASTING \_\_\_\_\_ 1 EA.

EXISTING DRAINAGE CHART

S.A.P. NO. 02-632-03; S.A.P. NO. 62-601-01

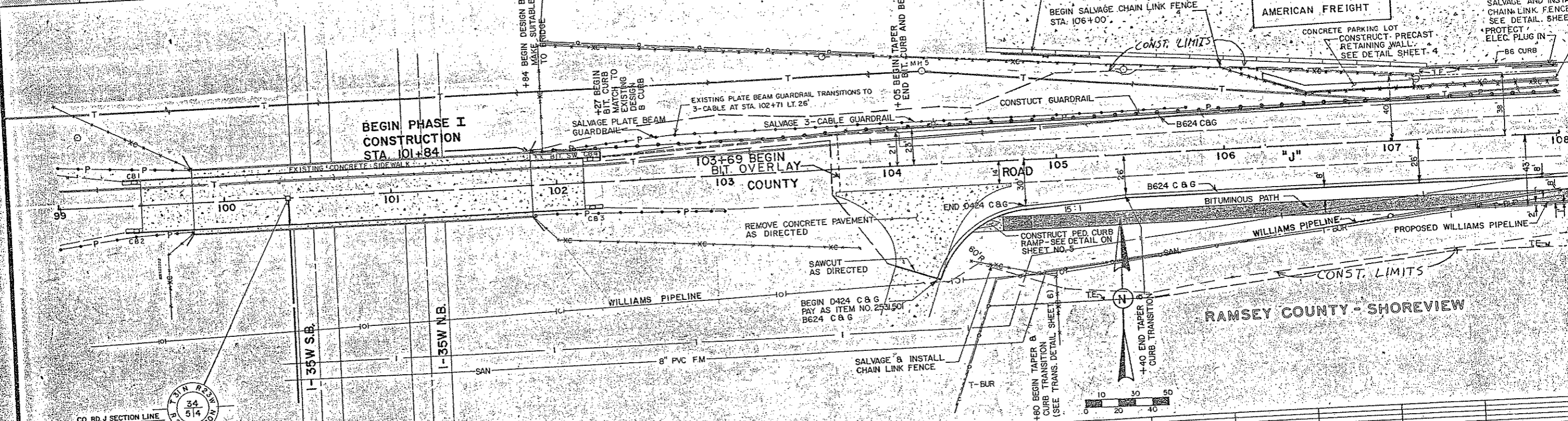


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PROFILE	PLOTTED BY DATE	CHECKED BY DATE

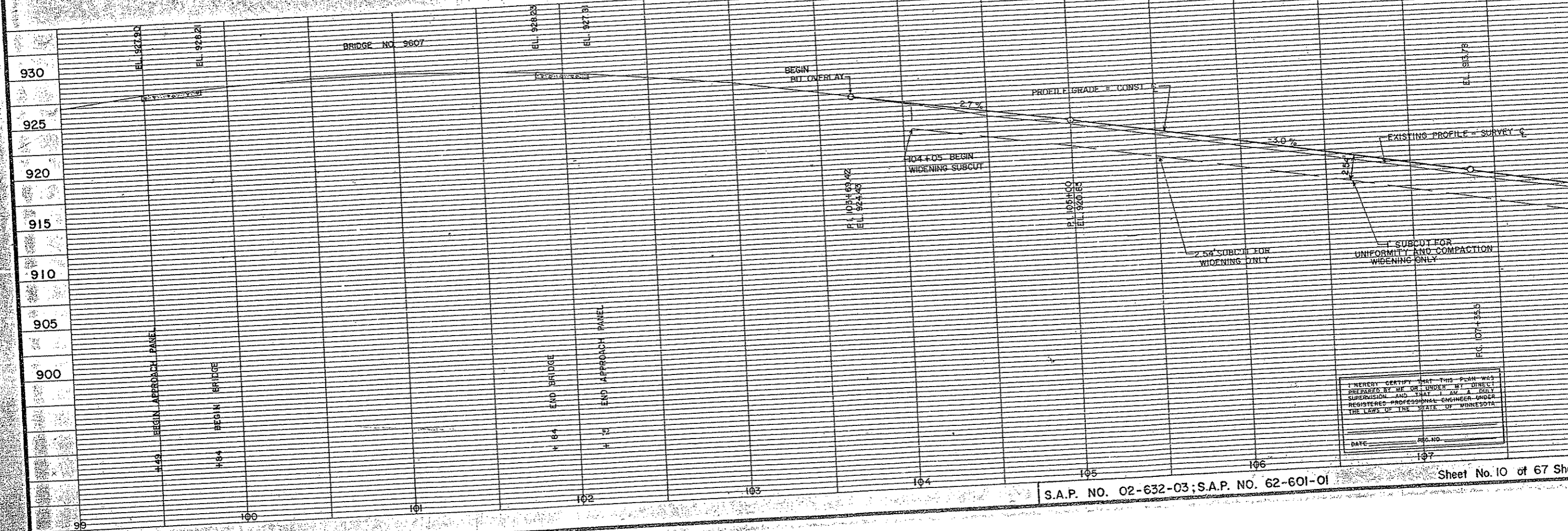
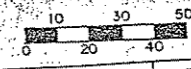
B.M. EL 523.18  
SPIKE IN GUARDRAIL  
POST STA. 104+26 LT. 26'

B.M. EL 928.59  
DISC IN BRIDGE SE.  
CORNER "J" & I-35W

NOTE: THERE IS A 1" CONDUIT ATTACHED TO CHAIN LINK FENCE FROM STA. 104+98 TO STA. 108+00 ON THE LEFT. ELECTRICAL DISCONNECTION TO BE MADE BY OWNER. CONTRACTOR SHALL COORDINATE FENCE RELOCATION WITH OWNER. SEE SPECIAL PROVISION.



CO. RD. J SECTION LINE  
STA. 100+38.65



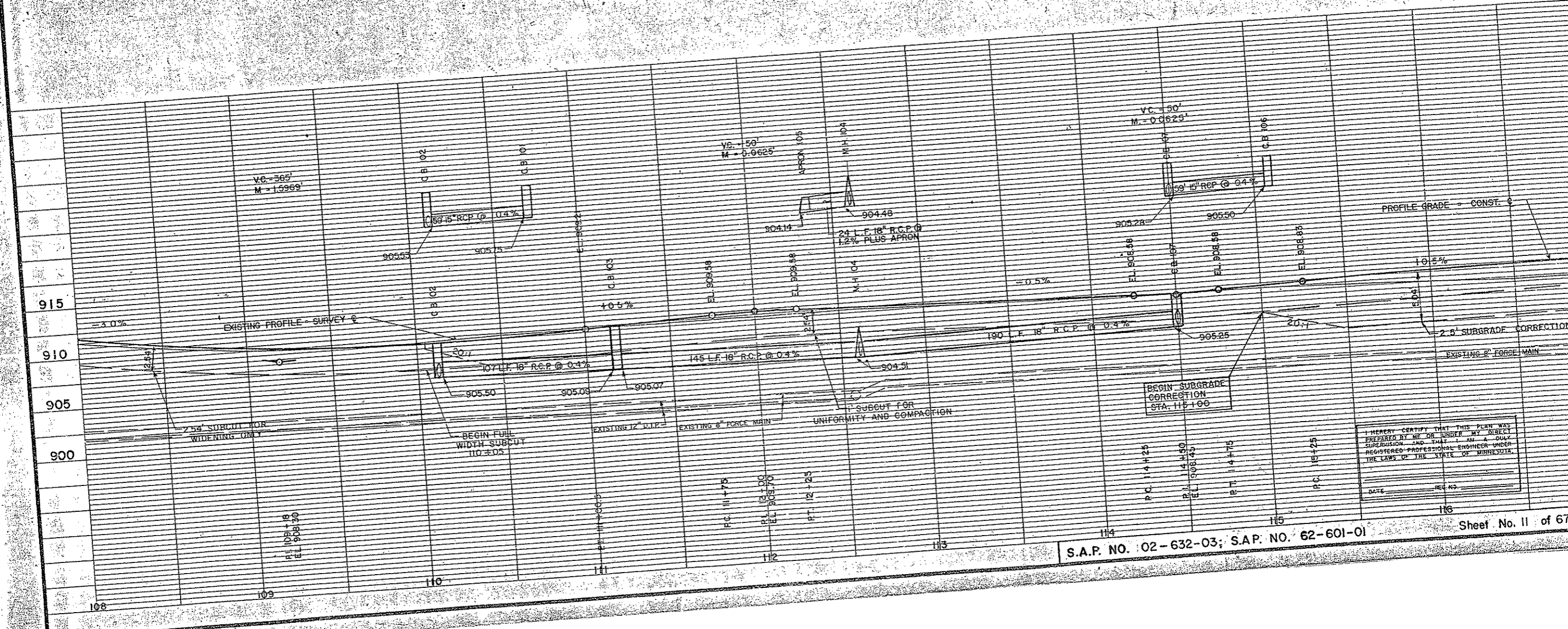
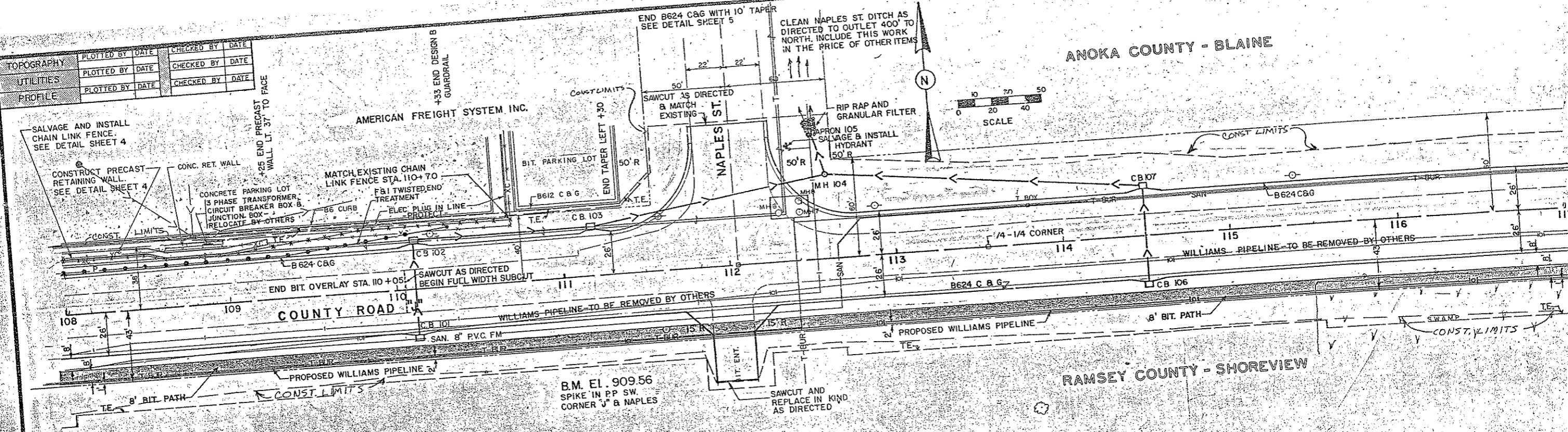
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE: \_\_\_\_\_ REG. NO. \_\_\_\_\_

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ANOKA COUNTY - BLAINE

RAMSEY COUNTY - SHOREVIEW



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DATE: \_\_\_\_\_ REG. NO. \_\_\_\_\_

S.A.P. NO. 02-632-03; S.A.P. NO. 62-601-01

TAPER B624 C. & G. TO MATCH EXISTING B618 C. & G. IN 10'. (SEE DETAIL SHEET 6) SEE SHEET 20

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PROFILE	PLOTTED BY	DATE	CHECKED BY	DATE

ANOKA COUNTY - BLAINE

H.V. JOHNSTON  
CULVERT CO. (3575)

NOTE: CONSTRUCT NEW ENTRANCE. EXACT LOCATION TO BE DETERMINED IN FIELD BY ENGINEER.

B.M. EL. 908.89  
SPIKE IN P.P. STA 120+50 LT. 30'

SALVAGE & INSTALL CHAIN LINK FENCE AS DIRECTED

CONST. LIMITS

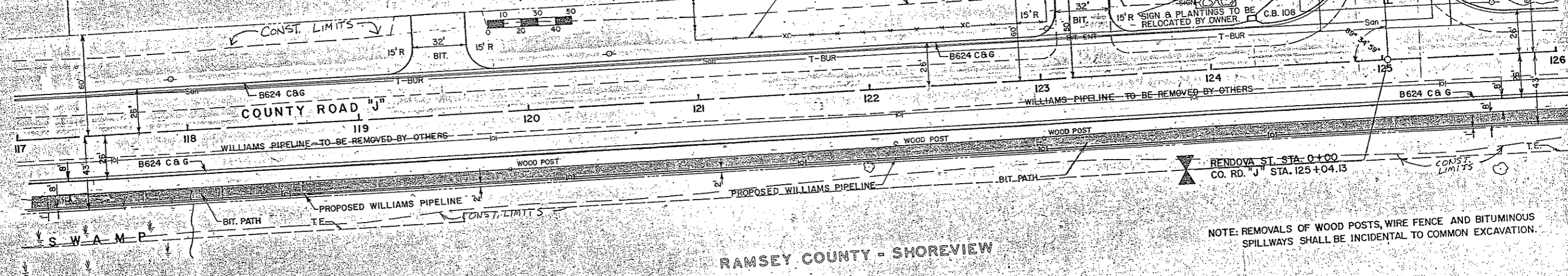
SAWCUT AS DIRECTED

15' R SIGN & PLANTINGS TO BE RELOCATED BY OWNER

SAWCUT AS DIRECTED AND MATCH EXISTING.

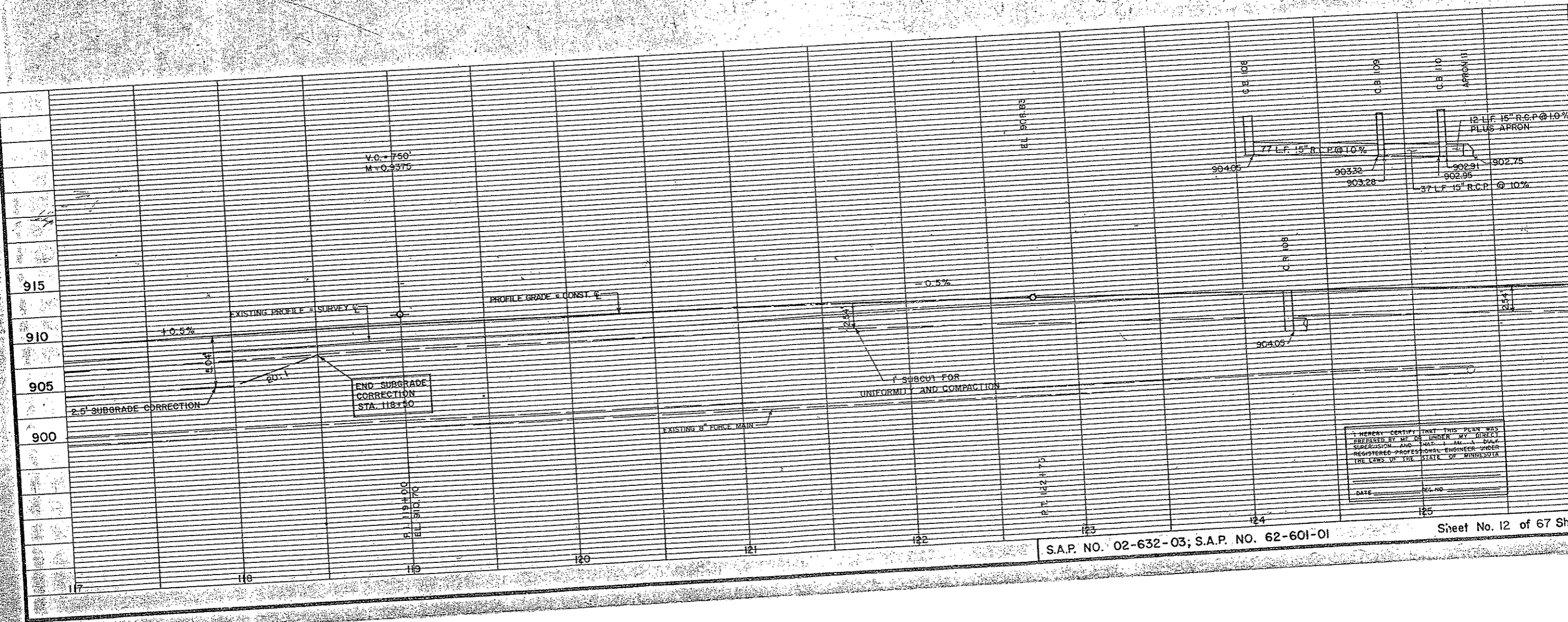
RIP RAP AND GRANULAR FILL

SWAMP



NOTE: REMOVALS OF WOOD POSTS, WIRE FENCE AND BITUMINOUS SPILLWAYS SHALL BE INCIDENTAL TO COMMON EXCAVATION.

RAMSEY COUNTY - SHOREVIEW



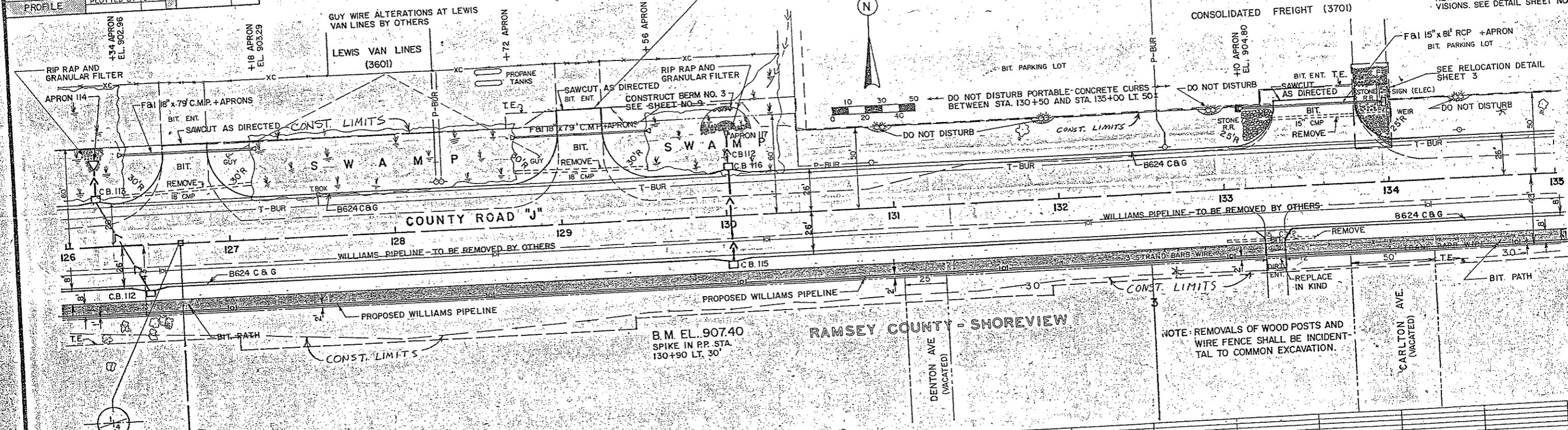
S.A.P. NO. 02-632-03; S.A.P. NO. 62-601-01

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NOTE: SALVAGE & INSTALL STONE RIPRAP AS DIRECTED BY THE ENGINEER TO NEW DRIVEWAY CULVERT LOCATION. INCLUDE THIS WORK IN THE PRICE OF OTHER ITEMS.

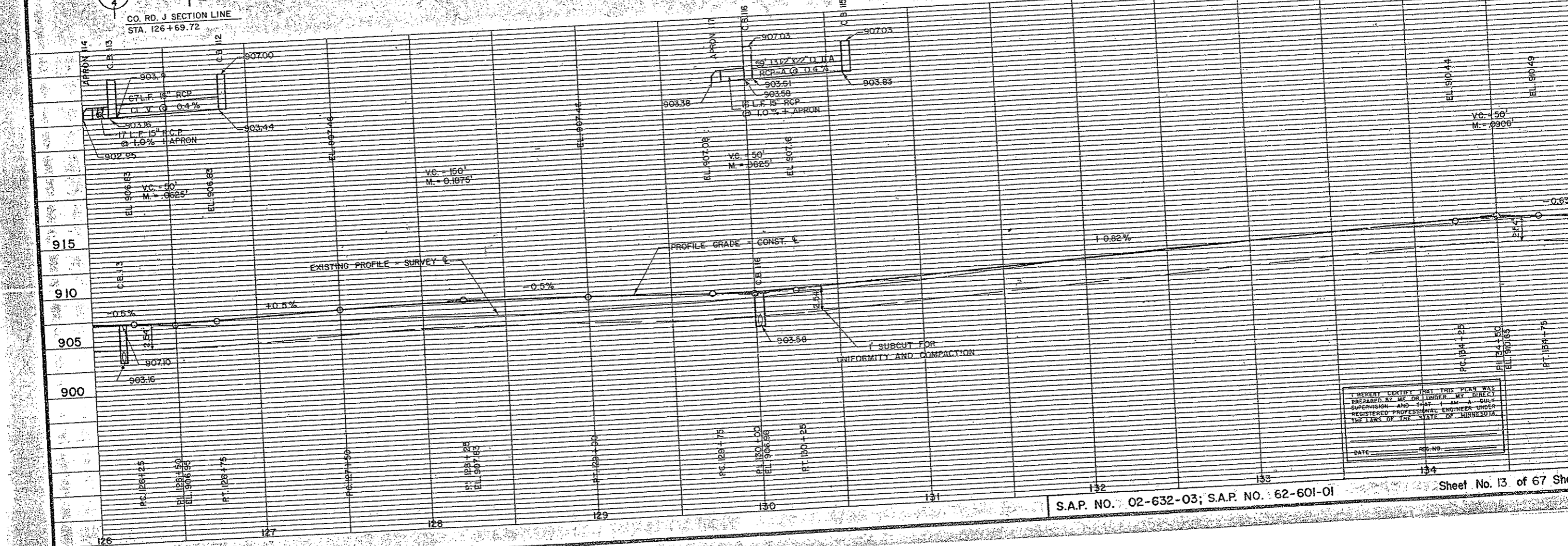
STA. 139+97 LT 49' EL. 905.30  
SALVAGE & INSTALL OR RECONSTRUCT INLET STRUCTURE NEW CULVERT SEE SPECIAL PROVISIONS. SEE DETAIL SHEET NO. 6

ANOKA COUNTY - BLAINE



RAMSEY COUNTY - SHOREVIEW

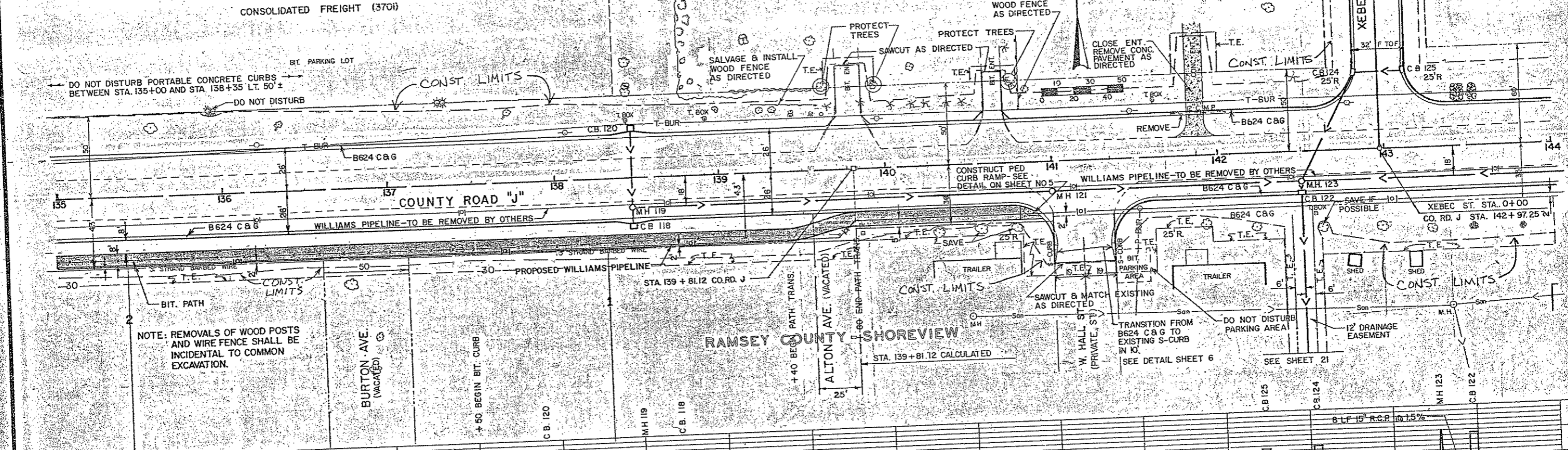
NOTE: REMOVALS OF WOOD POSTS AND WIRE FENCE SHALL BE INCIDENTAL TO COMMON EXCAVATION.



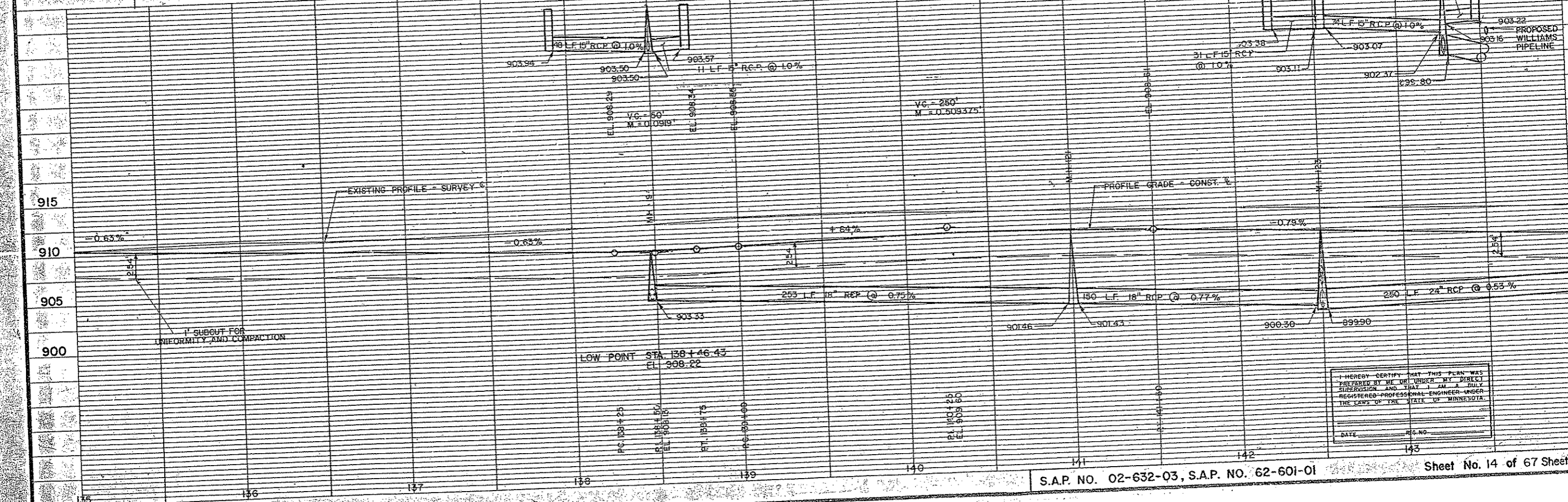
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

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NOTE: REMOVALS OF WOOD POSTS AND WIRE FENCE SHALL BE INCIDENTAL TO COMMON EXCAVATION.



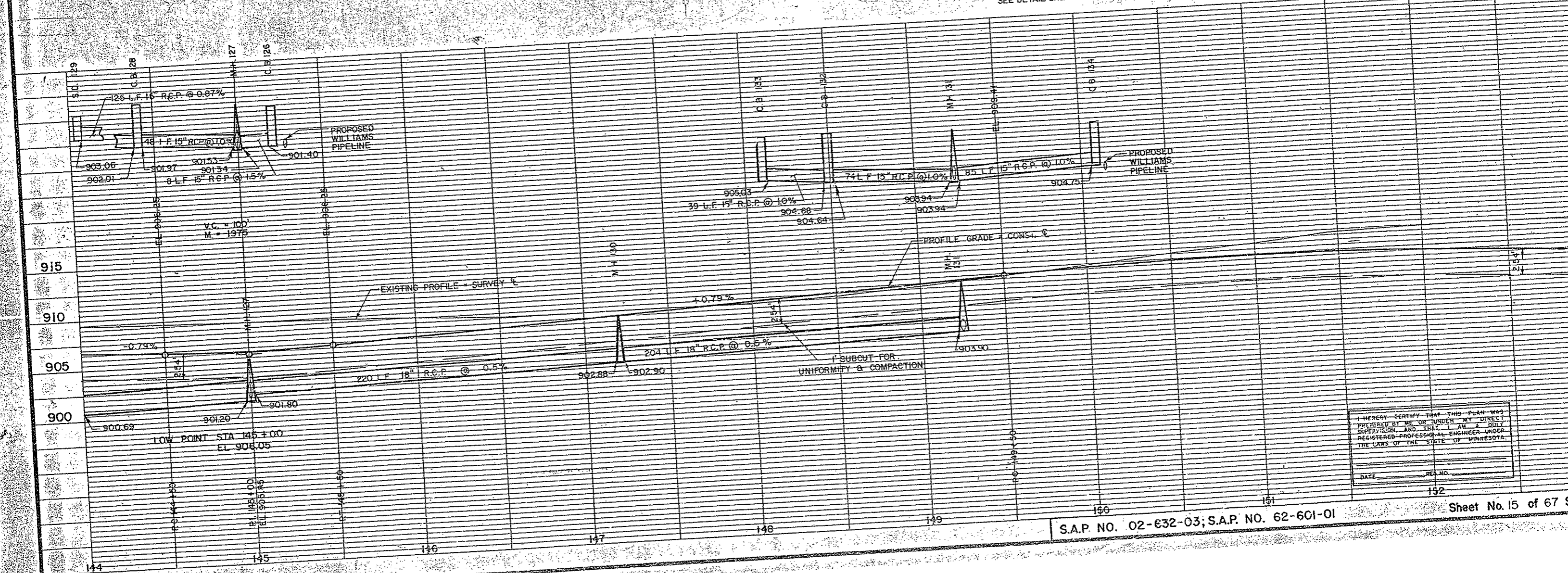
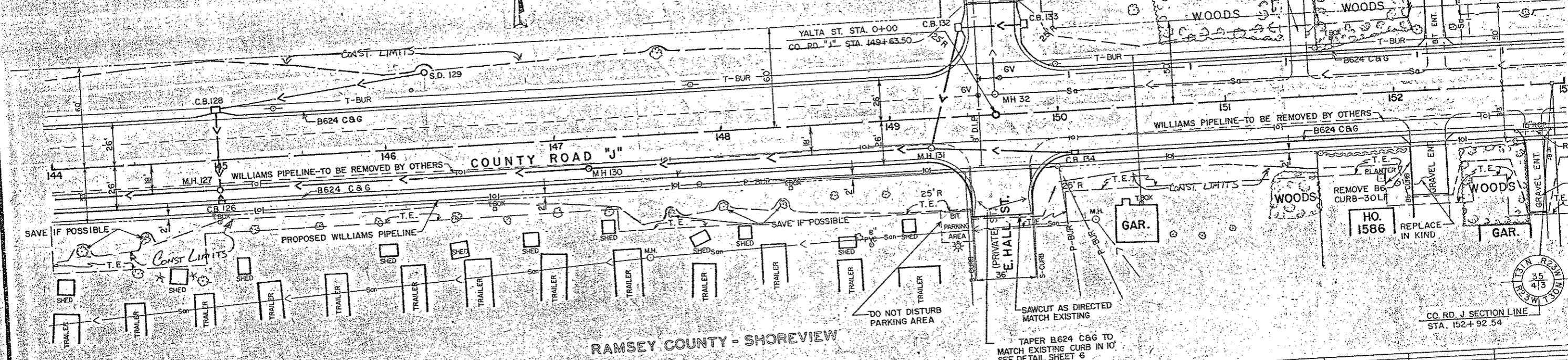
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PROFILE	PLOTTED BY DATE	CHECKED BY DATE

ANOKA COUNTY - BLAINE

B.M. EL. 910.76  
SPIKE IN RR STA.  
150+00 LT 30'



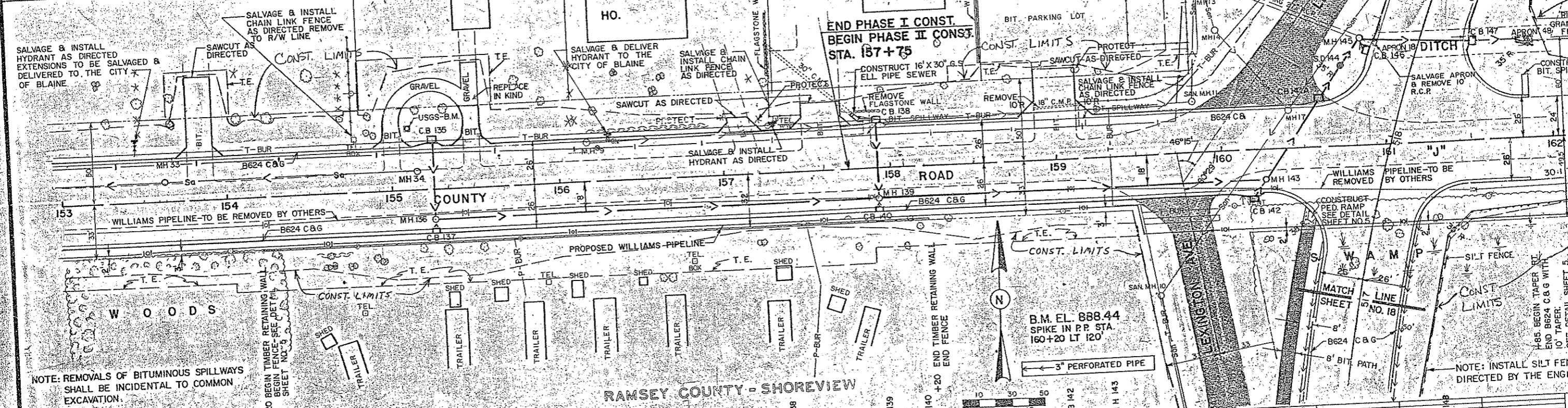
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DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_



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ANOKA COUNTY - BLAINE

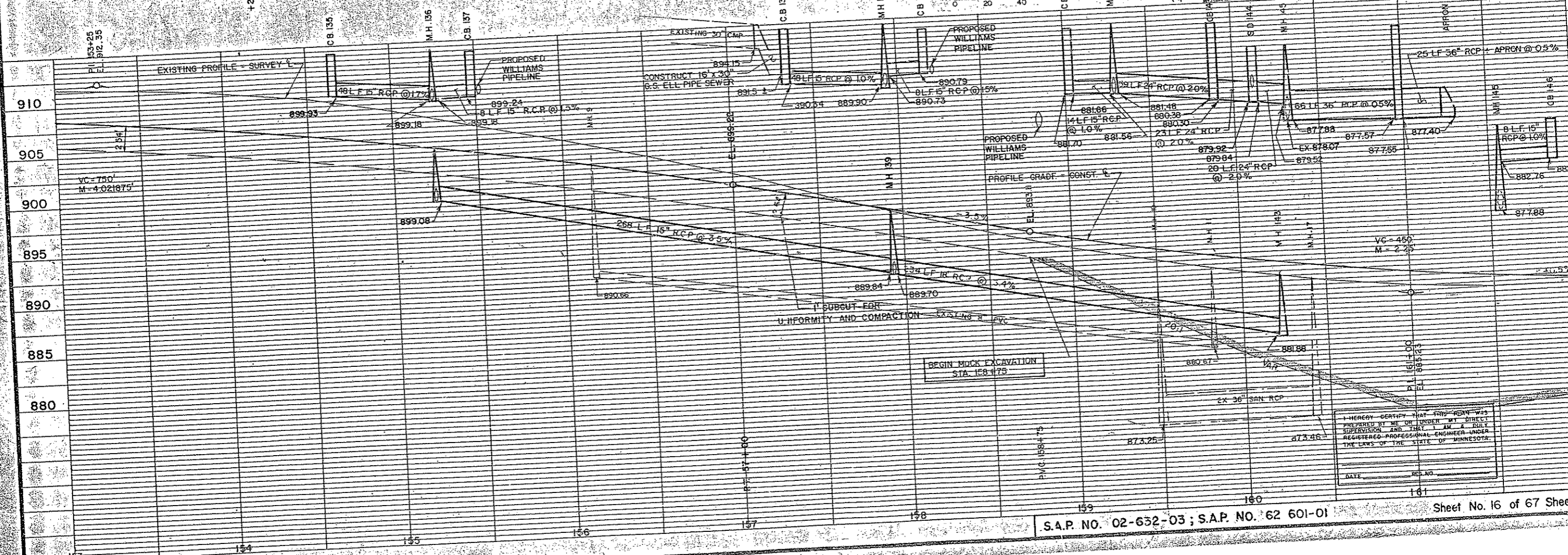


END PHASE I CONST.  
BEGIN PHASE II CONST.  
STA. 157+75

NOTE: REMOVALS OF BITUMINOUS SPILLWAYS SHALL BE INCIDENTAL TO COMMON EXCAVATION.

NOTE: INSTALL SILT FENCE DIRECTED BY THE ENGINEER

RAMSEY COUNTY - SHOREVIEW



S.A.P. NO. 02-632-03 ; S.A.P. NO. 62 601-01

Sheet No. 16 of 67 Sheets

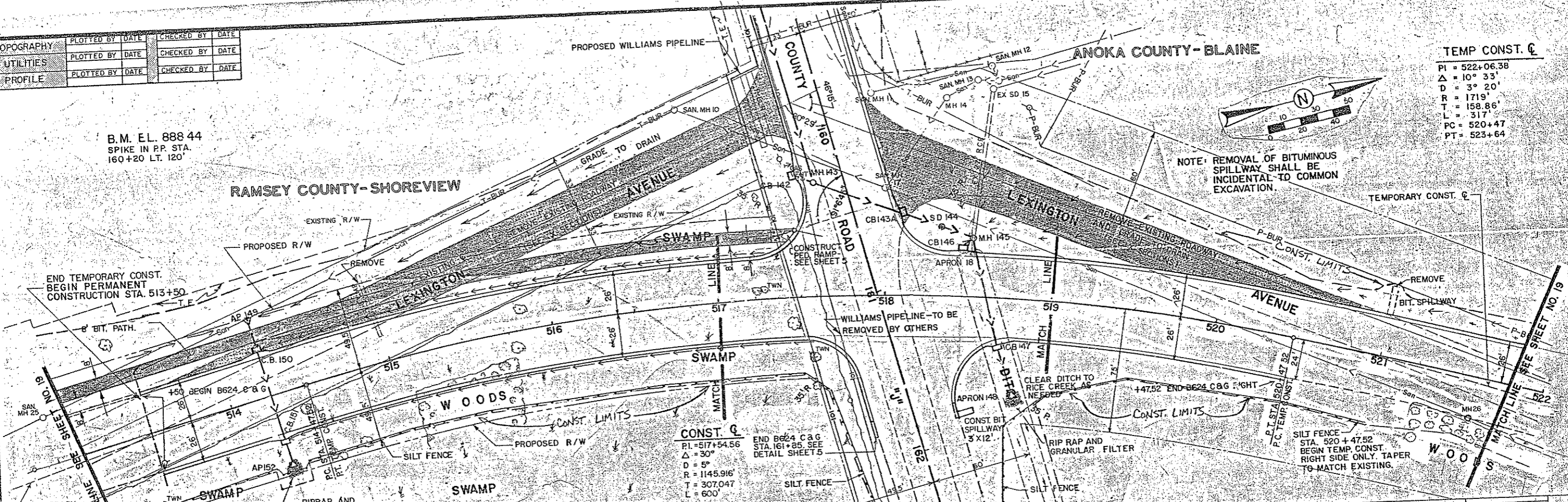
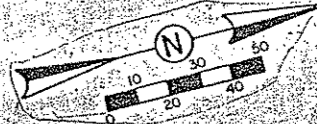
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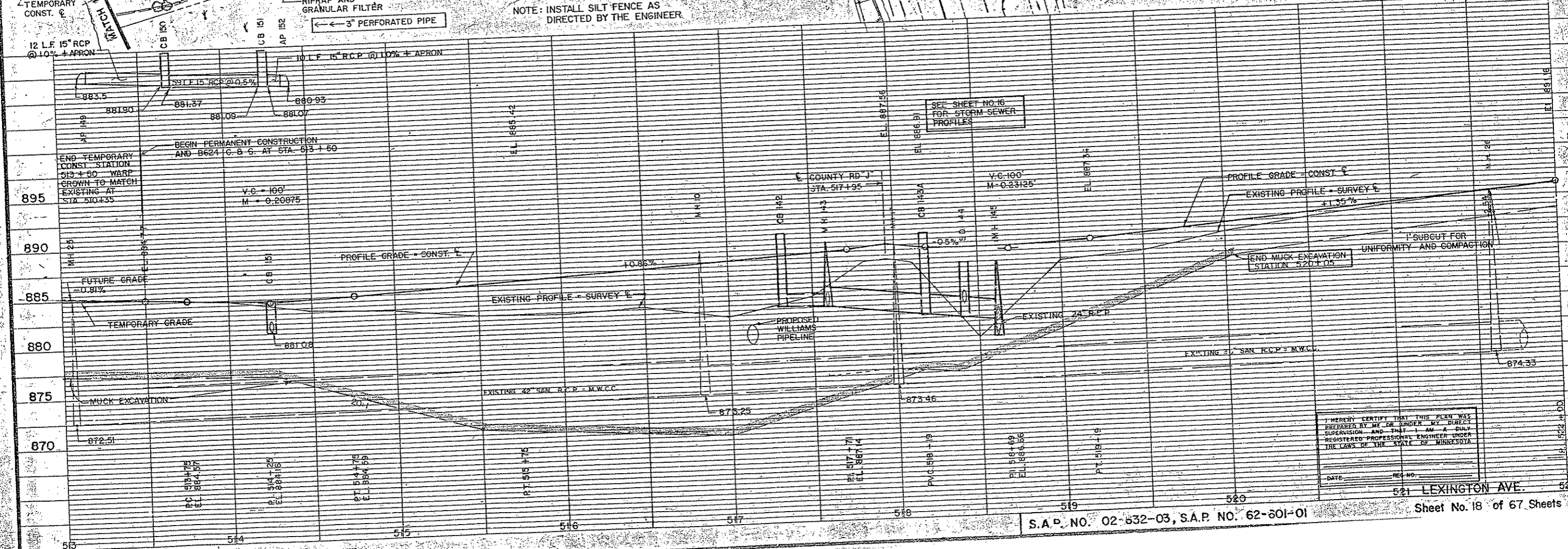
B.M. E.L. 888 44  
SPIKE IN P.P. STA.  
160+20 LT. 120'

TEMP CONST.  $\epsilon$   
 $PI = 522+06.38$   
 $\Delta = 10^\circ 33'$   
 $D = 3^\circ 20'$   
 $R = 1719'$   
 $T = 158.86'$   
 $L = 317'$   
 $PC = 520+47$   
 $PT = 523+64$



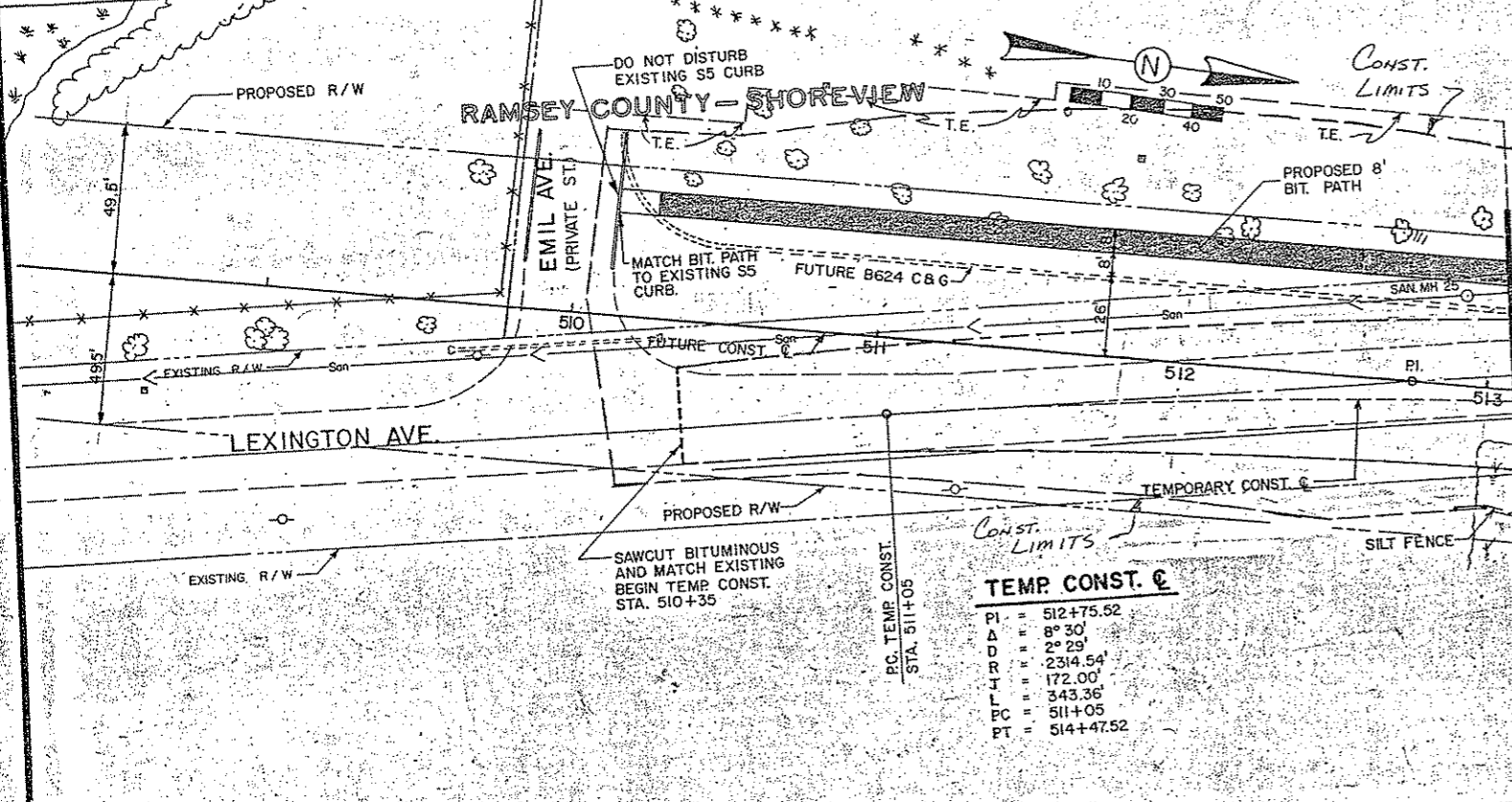
CONST.  $\epsilon$   
 $PI = 517+54.56$   
 $\Delta = 30^\circ$   
 $D = 5'$   
 $R = 1145.916'$   
 $T = 307.047'$   
 $L = 600'$

NOTE: INSTALL SILT FENCE AS DIRECTED BY THE ENGINEER.



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

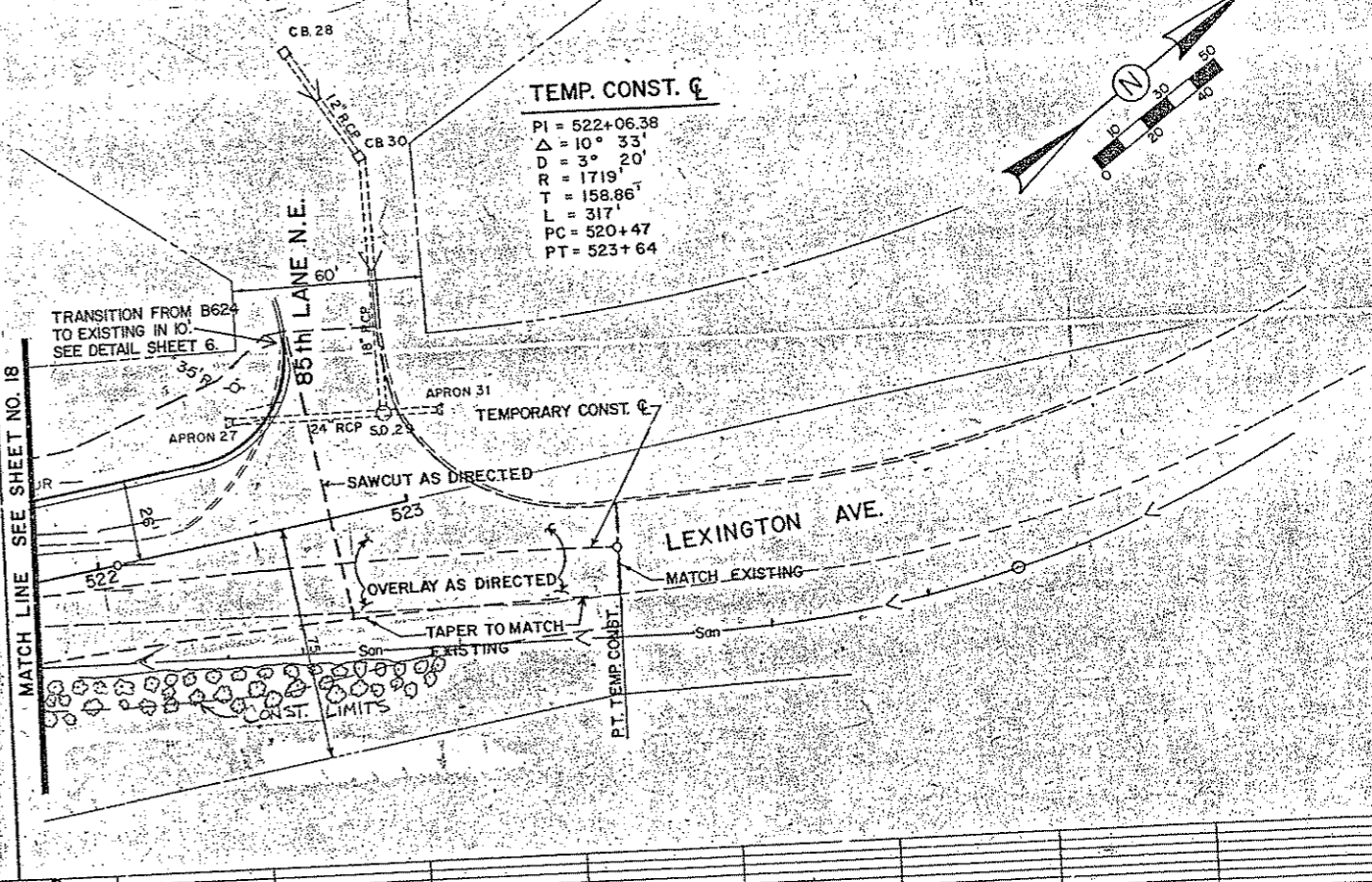
TOPOGRAPHY	PLOTTED BY	DATE	CHECKED BY	DATE
UTILITIES	PLOTTED BY	DATE	CHECKED BY	DATE
PROFILE	PLOTTED BY	DATE	CHECKED BY	DATE



**TEMP. CONST. C**

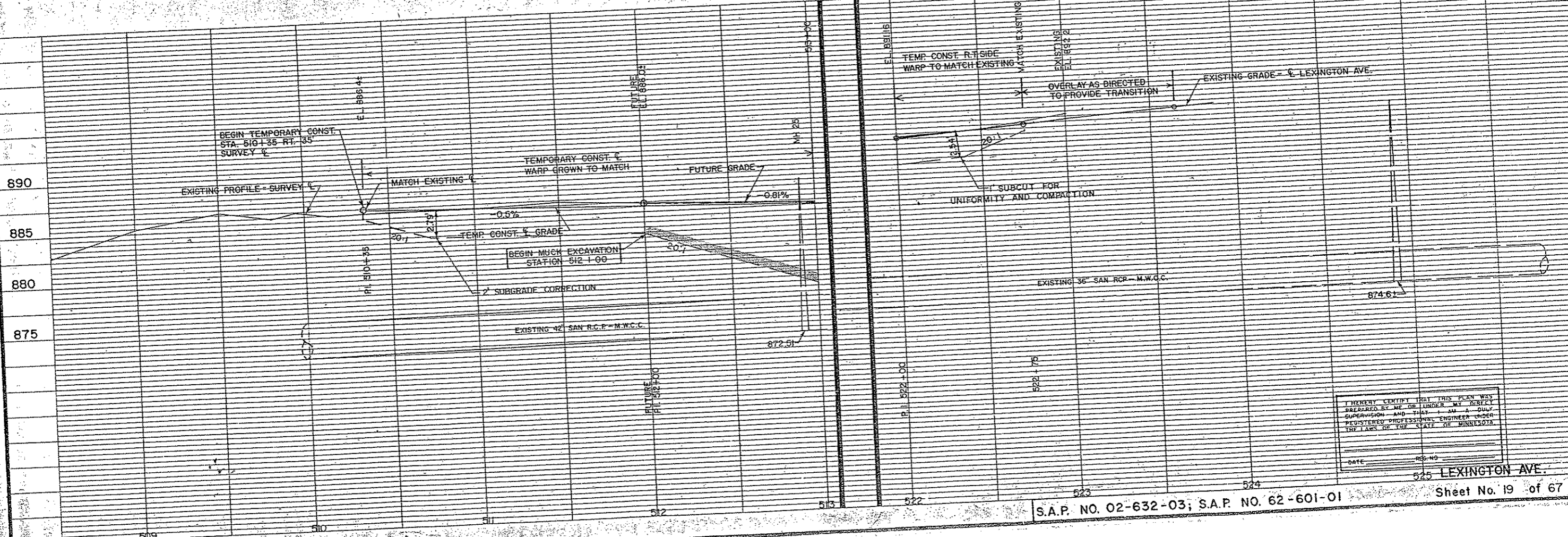
PI = 512+75.52  
 Δ = 8° 30'  
 D = 2° 29'  
 R = 2314.54'  
 T = 172.00'  
 L = 343.36'  
 PC = 511+05  
 PT = 514+47.52

**ANOKA COUNTY - BLAINE**



**TEMP. CONST. C**

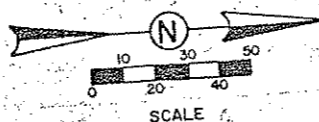
PI = 522+06.38  
 Δ = 10° 33'  
 D = 3° 20'  
 R = 1719'  
 T = 158.86'  
 L = 317'  
 PC = 520+47  
 PT = 523+64



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE: \_\_\_\_\_ REG. NO. \_\_\_\_\_

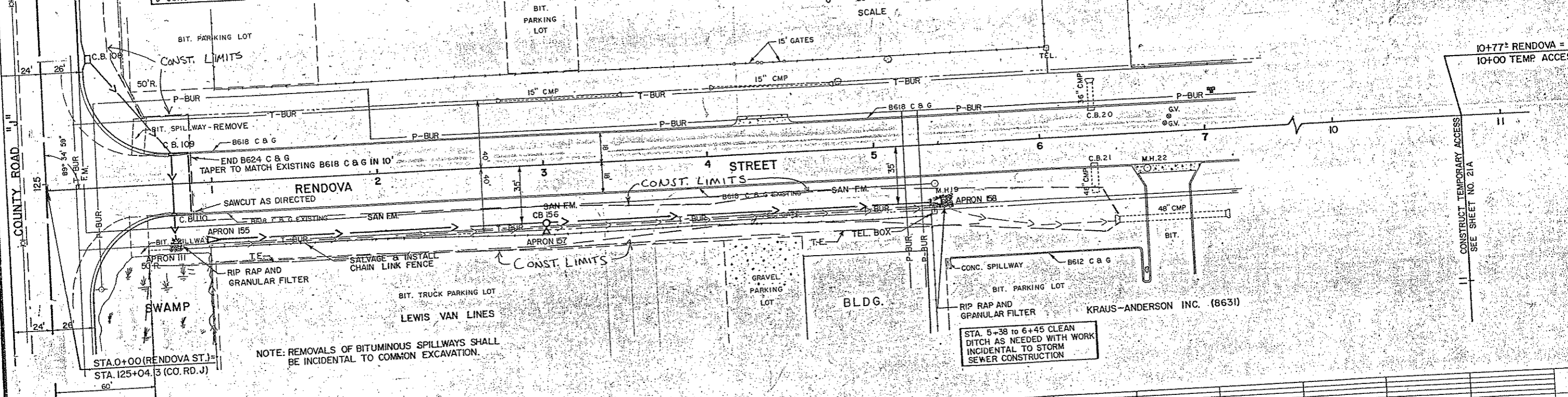
ANOKA COUNTY - BLAINE



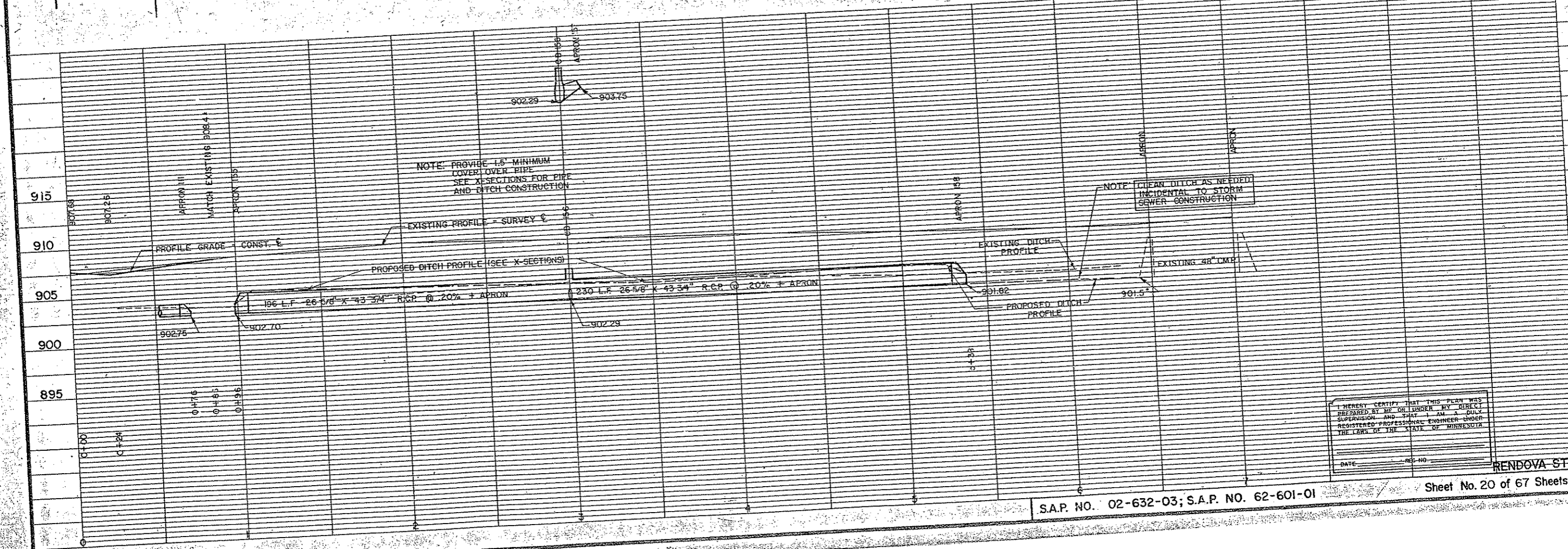
TOPOGRAPHY	PLOTTED BY	DATE	CHECKED BY	DATE
UTILITIES	PLOTTED BY	DATE	CHECKED BY	DATE
PROFILE	PLOTTED BY	DATE	CHECKED BY	DATE

SEE SHEET NO. 12 FOR COUNTY ROAD J CONSTRUCTION.

H. V. JOHNSTON CULVERT CO.



NOTE: REMOVALS OF BITUMINOUS SPILLWAYS SHALL BE INCIDENTAL TO COMMON EXCAVATION.

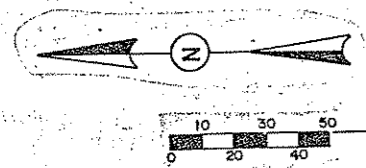


I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_

S.A.P. NO. 02-632-03; S.A.P. NO. 62-601-01

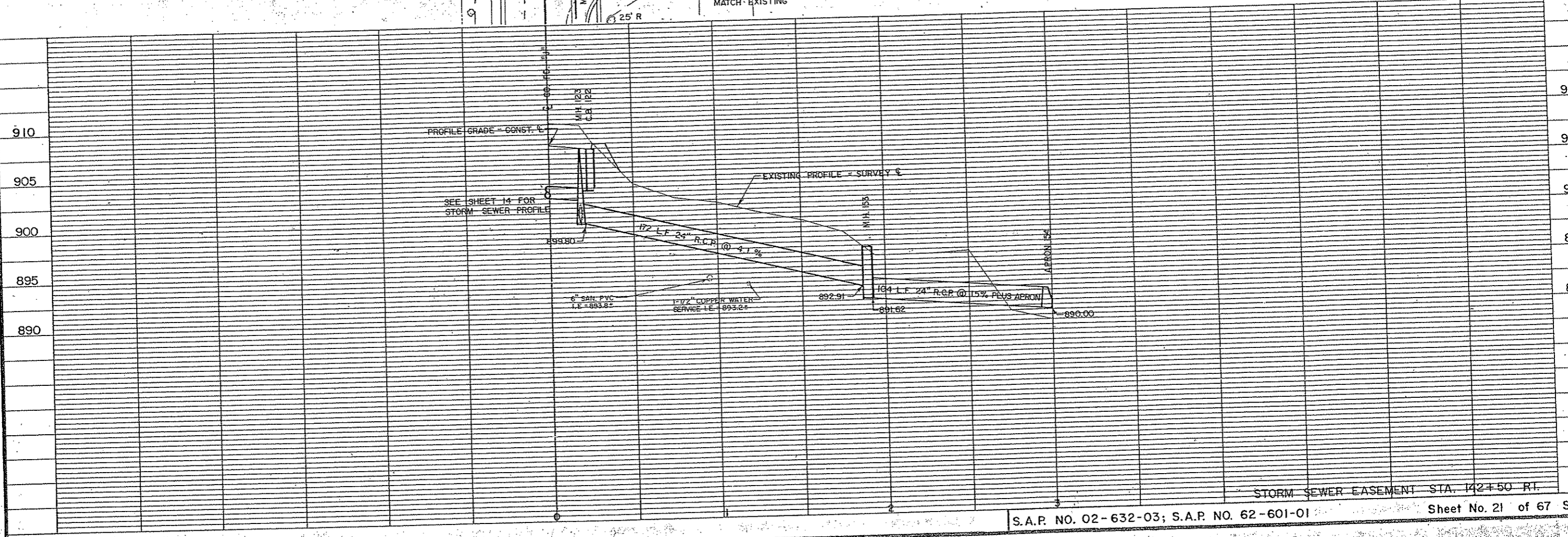
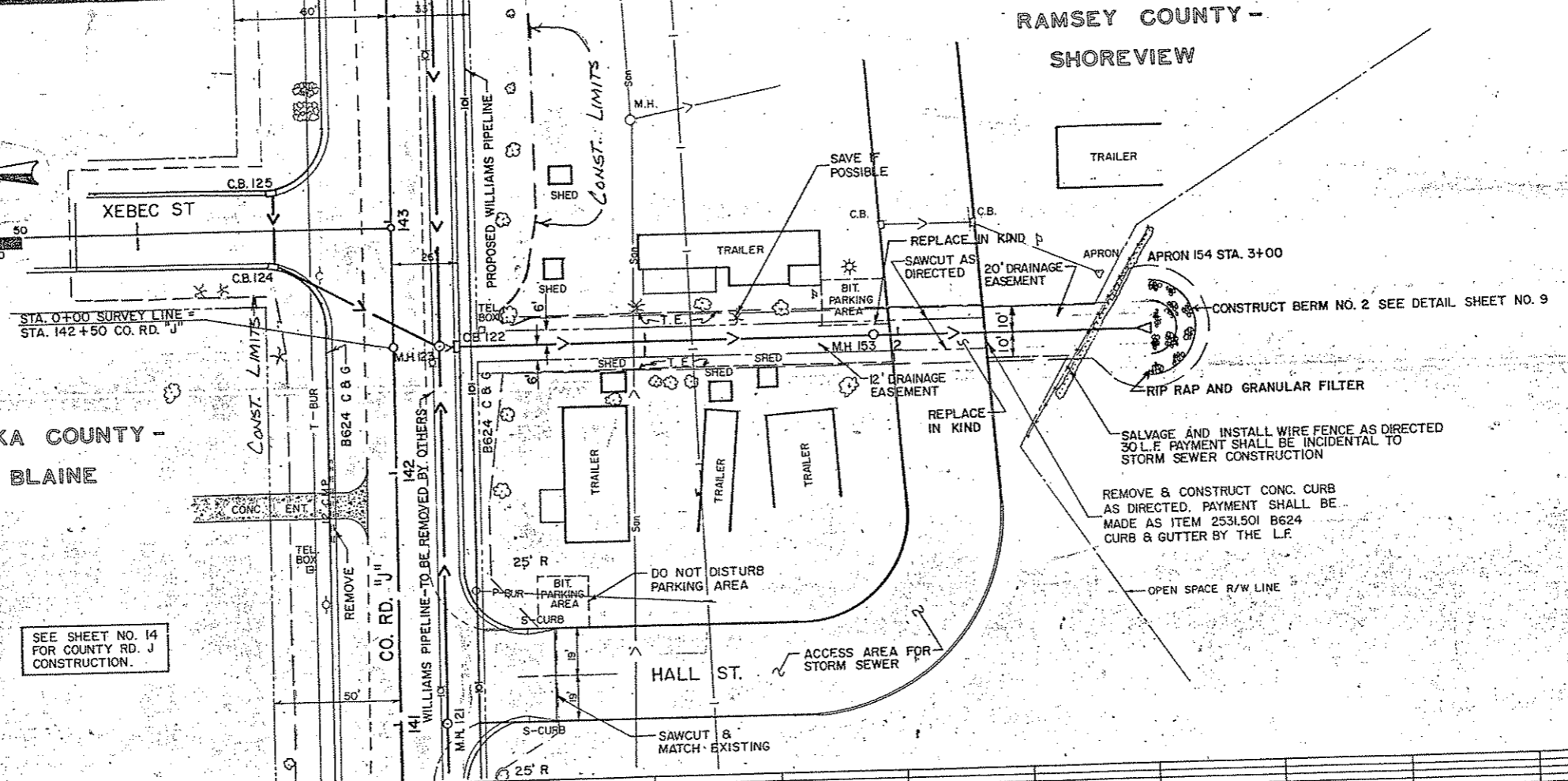
TOPOGRAPHY	PLOTTED BY	DATE	CHECKED BY	DATE
UTILITIES	PLOTTED BY	DATE	CHECKED BY	DATE
PROFILE	PLOTTED BY	DATE	CHECKED BY	DATE



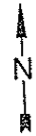
RAMSEY COUNTY -  
SHOREVIEW

ANOKA COUNTY -  
BLAINE

SEE SHEET NO. 14  
FOR COUNTY RD. J  
CONSTRUCTION.



RENDOVA ST. 10+77±  
TEMP. ENT. 10+00



APPROX. LOC. OF SAW-CUT TO REMOVE ENT. UPON COMPLETION OF COUNTY ROAD J.

BIT. LOT

F&I - TEMPORARY CHAIN LINK FENCE TO BE REMOVED UPON COMPLETION OF COUNTY ROAD J.

GRAVEL LOT

CONC. PARKING STOP

BIT. LOT

F&I - CHAIN LINK VEHICULAR GATE (DOUBLE)

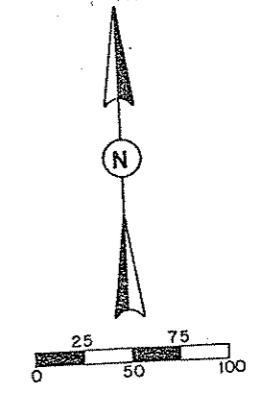
SALVAGE CHAIN LINK FENCE TO CONST. ENT. INSTALL FENCING UPON COMPLETION OF COUNTY ROAD J.

ELEC. PED. (CONC.) (SALVAGE PED. (1) FOR ENT. CONST. & REINSTALL UPON COMPLETION OF COUNTY ROAD J.) PAYMENT FOR SALVAGE & INSTALL ELEC. PED. SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION & REMOVAL OF TEMPORARY ENTRANCE.

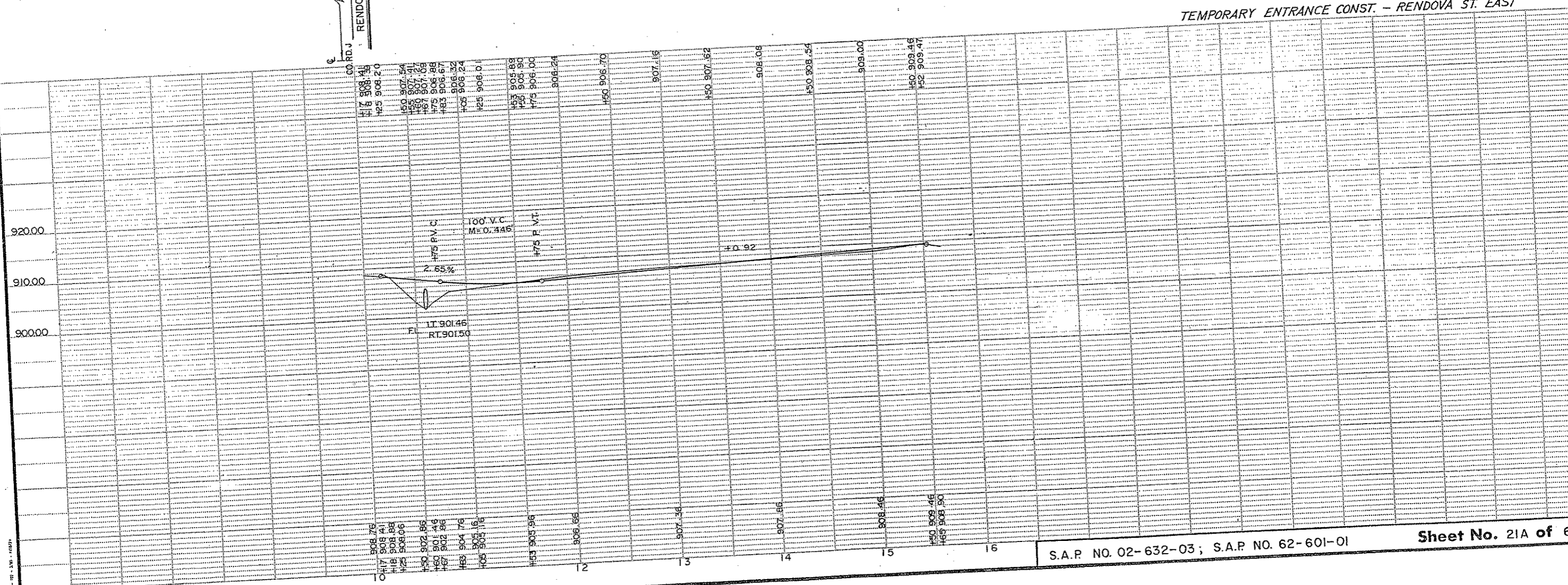
SALVAGE CHAIN LINK FENCE TO CONST. ENT. - INSTALL FENCE TO ORIGINAL STATE WHEN ENT. HAS BEEN REMOVED.

F&I 48" X 44" CMP CULVERT  
F&I 2-48" CMP APRONS

CONST. 30' TEMPORARY BIT ENT. WITH 5" OF CL-5 AGG. BASE & 2 1/2" OF 2331 WEARING COURSE. ENT. TO BE REMOVED FROM THE E. RANGE OF THE BIT LOT TO THE E. PROPERTY LINE UPON COMPLETION OF COUNTY ROAD J.



TEMPORARY ENTRANCE CONST. - RENDOVA ST. EAST



S.A.P. NO. 02-632-03; S.A.P. NO. 62-601-01

Sheet No. 21A of 67

STATION-ELEVATION

SALVAGE & INSTALL  
GUARDRAIL

102+15 927.81

+84 BEGIN PROJECT

END APPROACH PANEL

+84 928.23

END BRIDGE

+50 928.60

101+00 928.84

100+50 928.75

R/W

I HEREBY CERTIFY THAT THIS PLAN WAS  
PREPARED BY ME OR UNDER MY DIRECT  
SUPERVISION AND THAT I AM A DULY  
REGISTERED PROFESSIONAL ENGINEER UNDER  
THE LAWS OF THE STATE OF MINNESOTA.  
DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_

S.A.P. No. 02-632-03; S.A.P. No. 62-601-01

Sheet No. 1

80

70

60

50

40

30

20

10

0

10

20

30

40

50

60

STATION-SECTION

+50 24.8

13 11 5

VAR. B

R/W

103+00 26.2

VAR. B

8

R/W

102+50 927.2

12

VAR. B

+27 BEGIN BIT. CURB

3

R/W

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

S.A.P. No. 02-632-03; S.A.P. No. 62-601-01

Sheet No. 23 of 6

80

70

60

50

40

30

20

10

0

10

20

30

40

50

60

70



101 222 60

29 11 12

27 8 10

STATION - ELEVATION

22.72  
+50 21.58

22.74  
+31 22.4

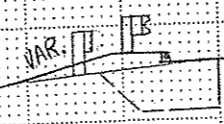
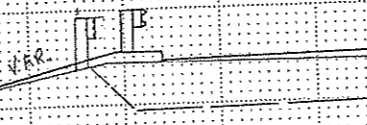
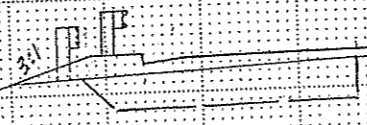
923.59  
104+00 923.3

WALL

R/W

R/W

R/W



+05 END BIT. CURB  
+05 BEGIN B624 C&G

+10 BEGIN WIDENING SUBCUT

103+69 BEGIN BITUMINOUS OVERLAY

EXISTING CONCRETE

EXISTING CONCRETE

EXISTING CONCRETE

Remove Concrete  
As Directed

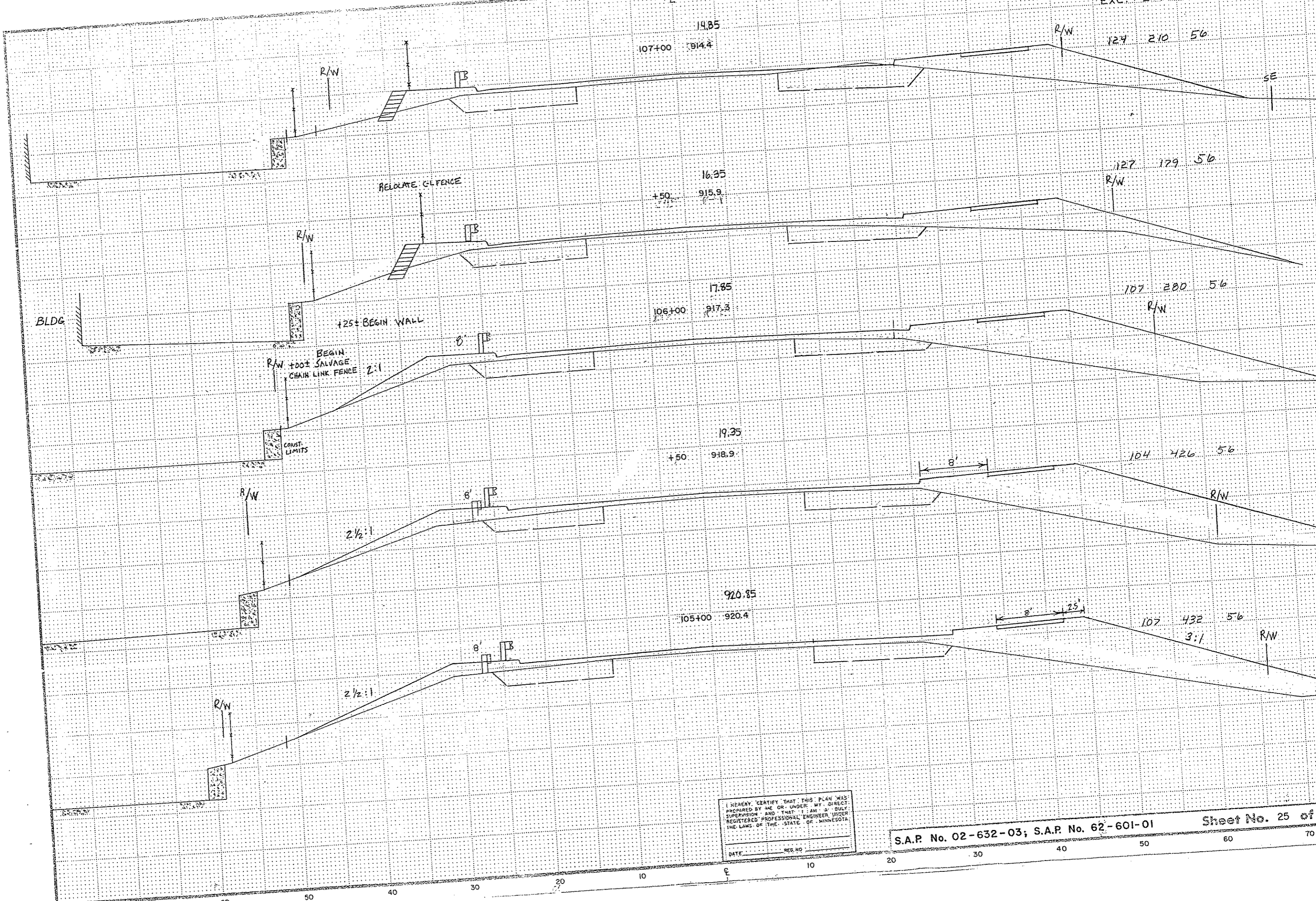
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

S.A.P. No. 02-632-03; S.A.P. No. 62-601-01

Sheet No. 24 of 67

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

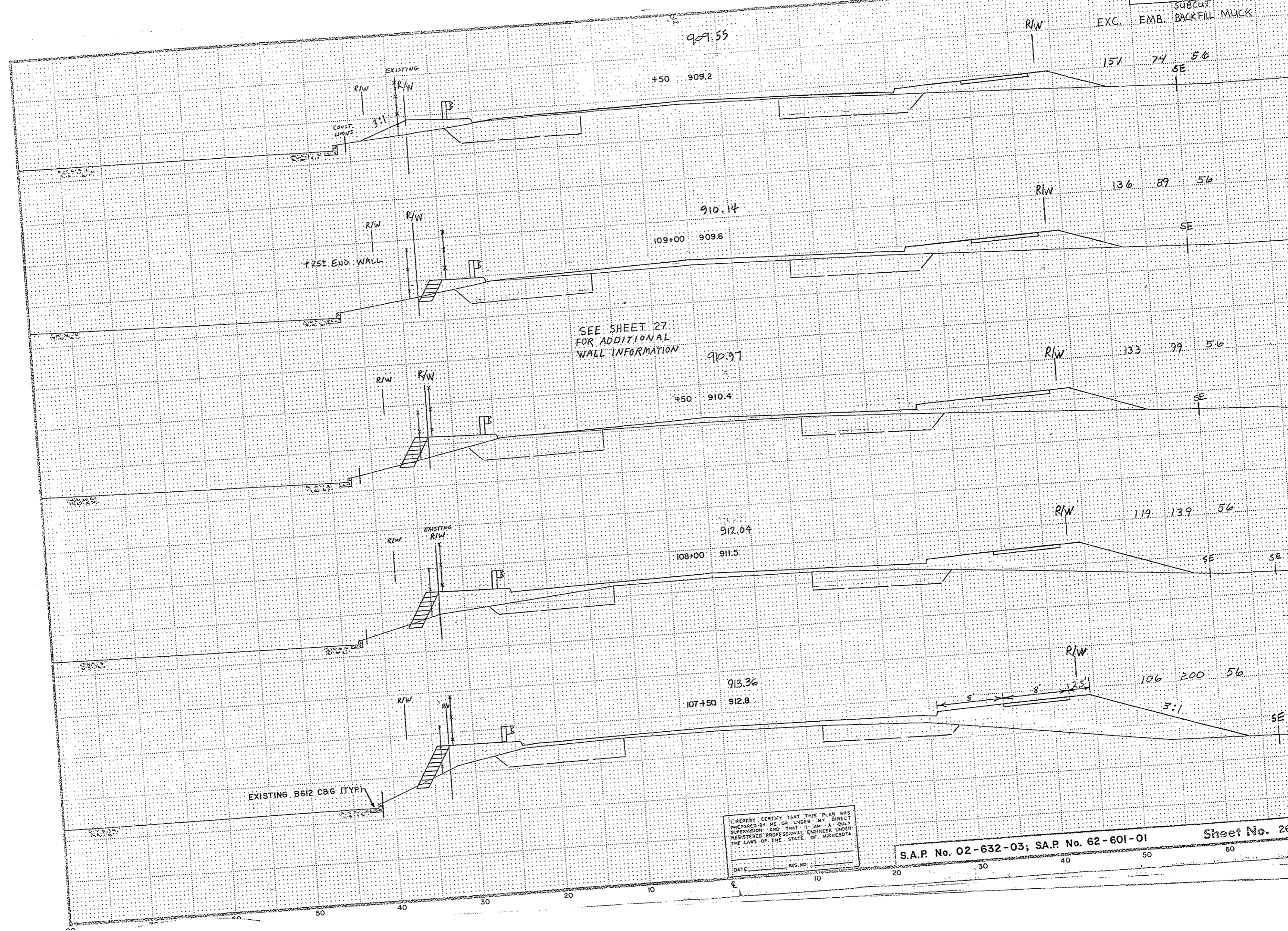
STATION - ELEVATION



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_

EXC. EMB. SUBCUT BACKFILL MUCK



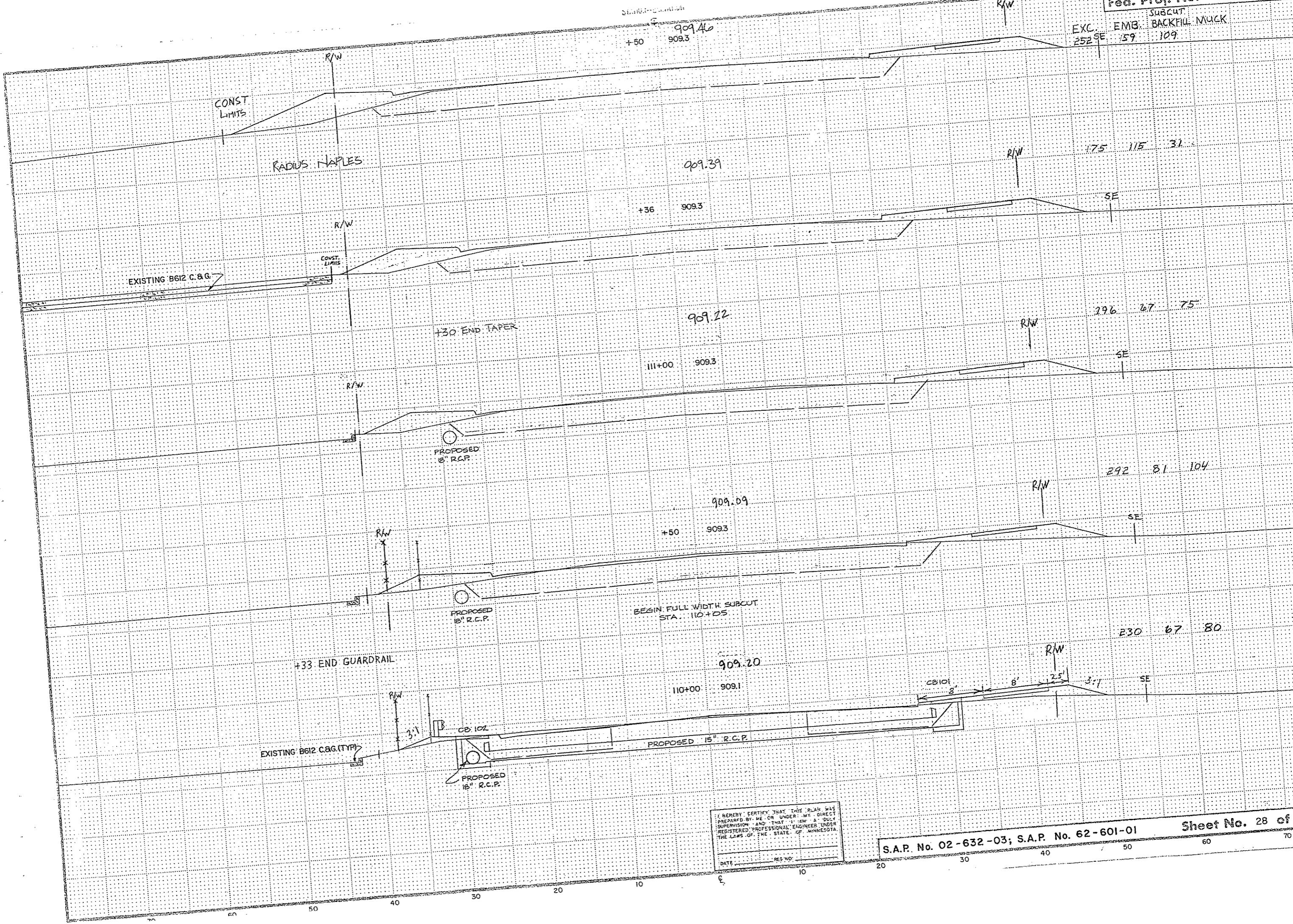
SEE SHEET 27 FOR ADDITIONAL WALL INFORMATION

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE \_\_\_\_\_ RES. NO. \_\_\_\_\_



EXC.	EMB.	SUBCUT	BACKFILL	MUCK
252	59	109		



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A FULLY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

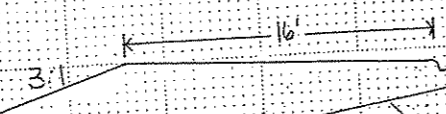
DATE \_\_\_\_\_ RES. NO. \_\_\_\_\_

STATION - ELEVATION

112+63 909.3  
909.39

177 135 77  
SE

R/W



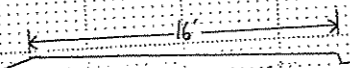
112+43 909.3  
909.49

105 67 46  
SE

R/W

RADIUS NAPLES ST.

DITCH LT.



APRON 105  
STA. 112+53 LT. 80' VAR.

3:1

112+26 909.3  
909.57

138 34 58  
SE

R/W

E. G.L. NAPLES

PROPOSED  
8" WILLIAMS  
PIPELINE  
TOP. EL. = 904.62

R/W  
BIT. ENT.

112+05 909.2  
909.68

231 25 89  
SE

E. NAPLES

-5% ±

111+83 909.3  
909.61

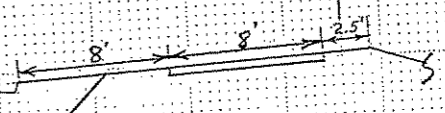
231 27 94  
SE

R/W

PROPOSED  
8" WILLIAMS  
PIPELINE  
TOP. EL. = 904.42

W. G.L. NAPLES

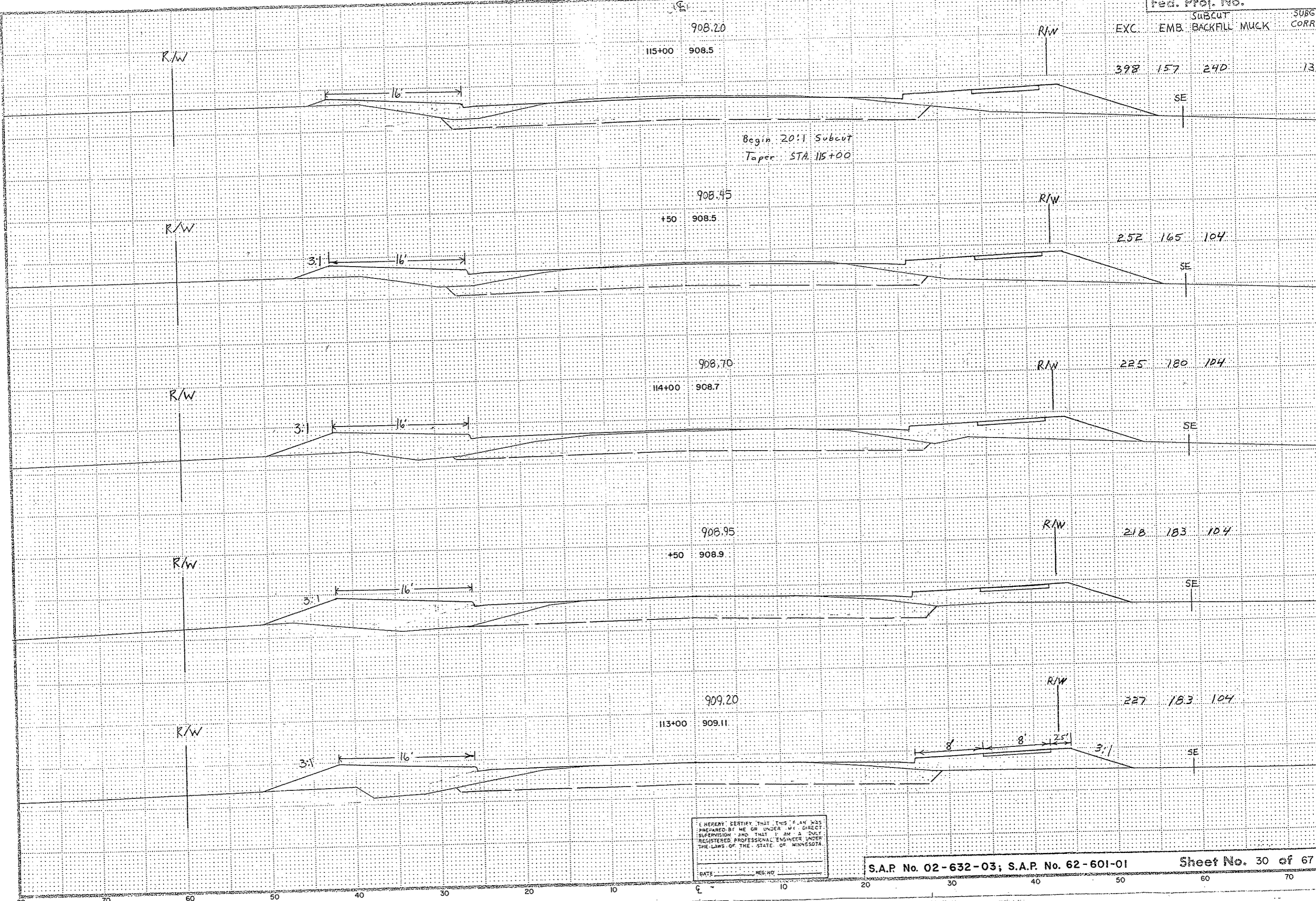
PROPOSED  
8" WILLIAMS  
PIPELINE  
TOP. EL. = 904.31



I HEREBY CERTIFY THAT THIS PLAN WAS  
PREPARED BY ME OR UNDER MY DIRECT  
SUPERVISION AND THAT I AM A DULY  
REGISTERED PROFESSIONAL ENGINEER UNDER  
THE LAWS OF THE STATE OF MINNESOTA.  
DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_

S.A.P. No. 02-632-03; S.A.P. No. 62-601-01

Sheet No. 29 of 67



Begin 20:1 Subcut  
Taper STA. 115+00

I HEREBY CERTIFY THAT THIS PLAN WAS  
PREPARED BY ME OR UNDER MY DIRECT  
SUPERVISION AND THAT I AM A QUALY  
REGISTERED PROFESSIONAL ENGINEER UNDER  
THE LAWS OF THE STATE OF MINNESOTA.

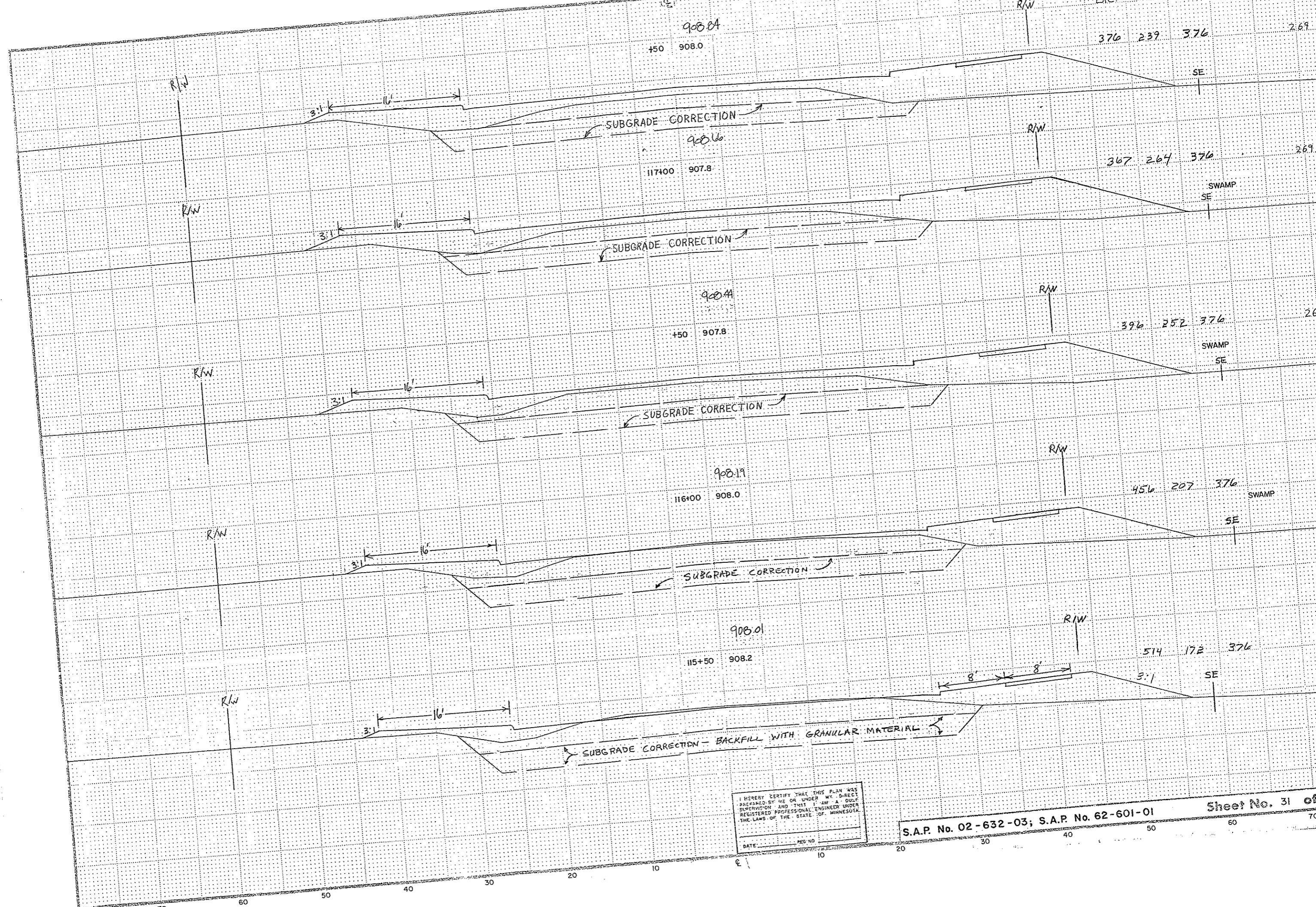
DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_

S.A.P. No. 02-632-03; S.A.P. No. 62-601-01

Sheet No. 30 of 67 S

STATION-ELEVATION

Exc.	Emb.	Backfill	Muck	Subgrade Correction
376	239	376		269
367	264	376		269
396	252	376		269
456	207	376		269
514	172	376		269



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_



STATION-ELEVATION  
120+00 909.26  
908.1

Fed. Proj. No. SUBGRADE CORRECTIO  
EXC. 106 EMB. 208 SUBCUT BACKFILL MUCK 104

R/W

3:1 16'

111 207 104

SE

+50 909.24  
908.1

CONSTRUCT ENTRANCE  
(EXACT LOCATION IN THE FIELD)  
16'

R/W

SE

R/W

118+00 909.19  
908.2

130 220 104

SE

R/W

3:1 16'

+50 909.11  
908.1

141 231 104

SE

R/W

3:1 16'

118+00 908.99  
908.1

265 221 240

SE

R/W

3:1 16'

SUBGRADE CORRECTION  
BEGIN 20:1  
SUBCUT TAPER  
STA. 118+00

R/W

8' 8' 2.5'

I HEREBY CERTIFY THAT THIS PLAN WAS  
PREPARED BY ME OR UNDER MY DIRECT  
SUPERVISION AND THAT I AM A DULY  
REGISTERED PROFESSIONAL ENGINEER UNDER  
THE LAWS OF THE STATE OF MINNESOTA.  
DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_

S.A.P. No. 02-632-03; S.A.P. No. 62-601-01

Sheet No. 32 of 67



STATION-ELEVATION

Fed. Proj. No.

EXC. EMB. SUBCUT BACKFILL MUCK

908.84  
+50 908.2

184 88 SE 104

908.99  
122+00 908.3

164 116 104

909.11  
+50 908.2

149 143 104

909.19  
121+00 908.1

128 177 104

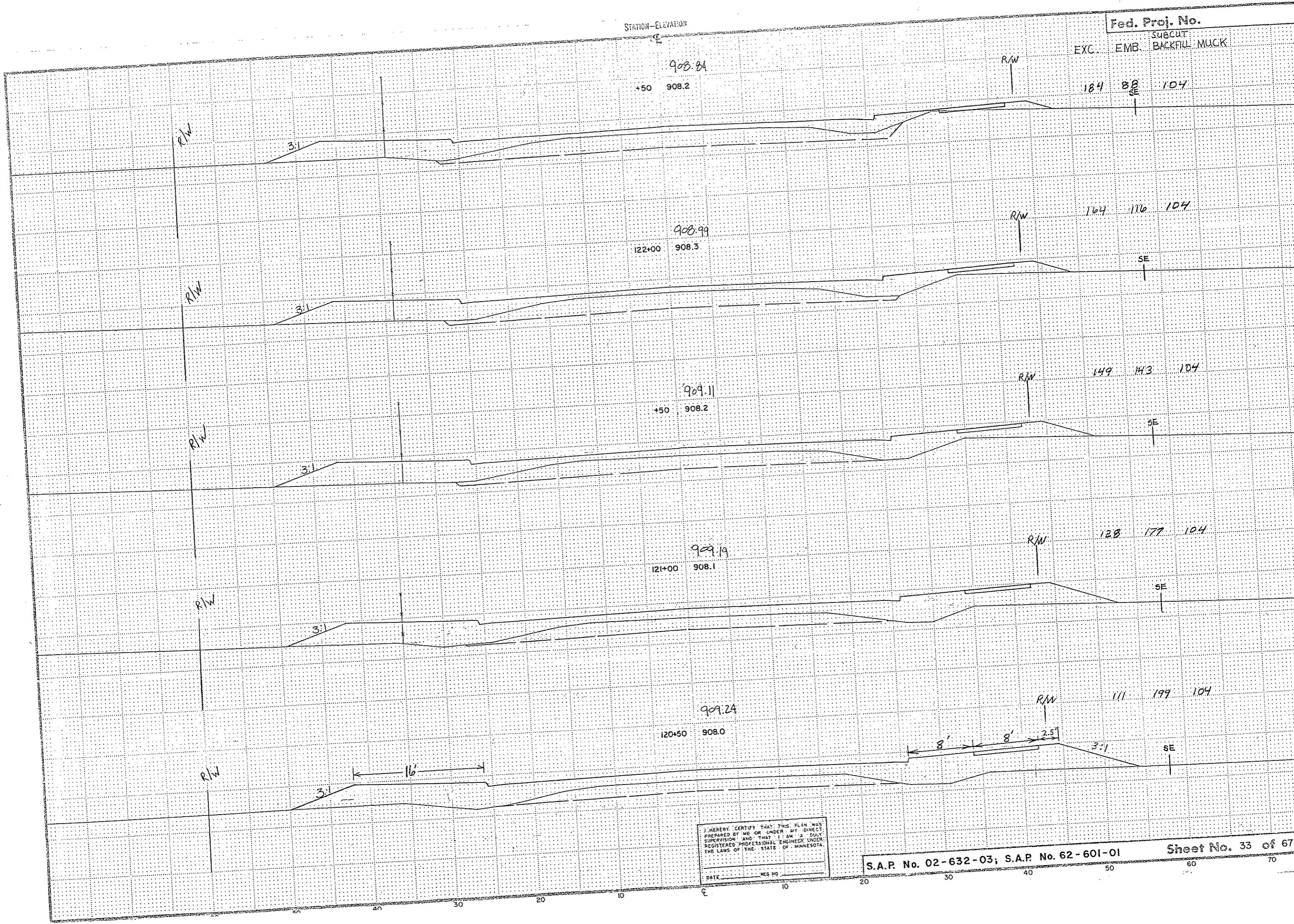
909.24  
120+50 908.0

111 199 104

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_

S.A.P. No. 02-632-03; S.A.P. No. 62-601-01

Sheet No. 33 of 67



STATION-ELEVATION

Fed. Proj. No.

EXC. EMB. SUBCUT BACKFILL MUCK

907.87  
+67 907.6

165 47 70

E DITCH

RADIUS RENDOVA ST.

3:1 8'

907.95  
+50 907.7

88 45 38

RADIUS RENDOVA ST.

3:1 8'

908.20  
124+00 907.9

231 117 104

BIT. PARKING LOT

3:1 8'

908.53  
+30 908.1

325 97 145

E BIT. ENTRANCE

8'

908.66  
123+00 908.1

133 33 162

R/W

3:1

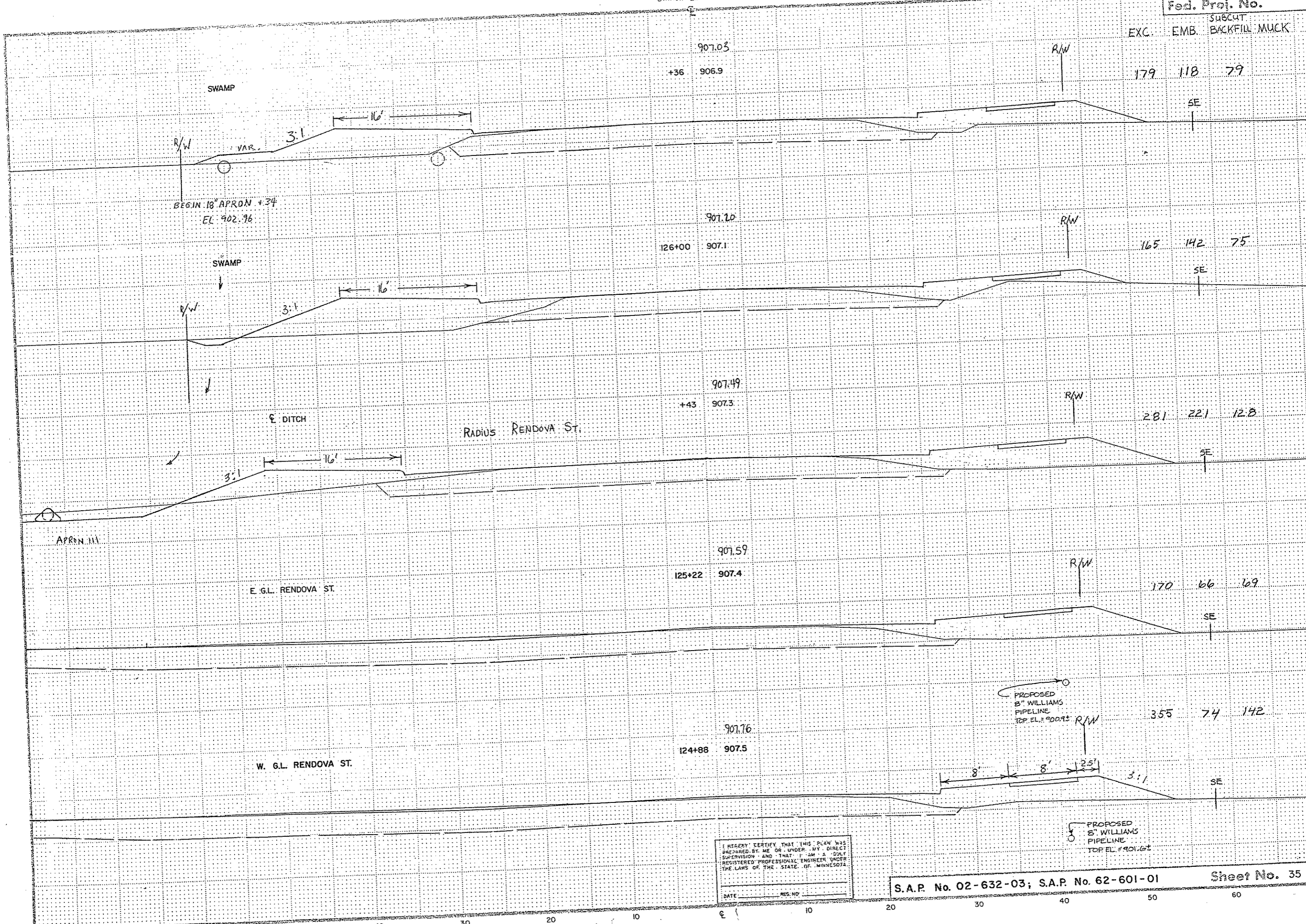
8' 8' 3:1

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
DATE \_\_\_\_\_ RES. NO. \_\_\_\_\_

S.A.P. No. 02-632-03; S.A.P. No. 62-601-01

Sheet No. 34 of 67

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_

S.A.P. No. 02-632-03; S.A.P. No. 62-601-01

Sheet No. 35 of 67



EXC. 118  
EMB. 266  
SUBCUT BACKFILL MUCK 89

+70 906.1

R/W  
BEGIN 18" APRON +72  
EL. 903.65  
VAR.  
3:1

SWAMP  
16'

907.70  
128+00 906.3

R/W  
141 557 145

907.31  
+21 906.5

R/W  
200 553 164

907.24  
127+08 906.5

R/W  
40 62 27

907.07  
126+74 906.6

R/W  
137 101 71

R/W  
END APRON +18  
EL. 903.29

Q . BIT. ENT.

16'

8' 8' 2.5'

Q 2 13" CMP

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A FULLY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_

S.A.P. No. 02-632-03; S.A.P. No. 62-601-01

Sheet No. 36 of 67

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

STATION-ELEVATION

+39 906.9  
907.27

ε DITCH

R/W

3:1

16'

R/W

136  
189  
81

136 189 81

SE

130+00 906.5  
907.04

SWAMP

R/W

CONST. BERM NO. 3  
SEE SHEET NO. 9  
TOP ELEV. 904.61

3:1

907.15

+62 906.3

SWAMP

R/W

3:1

8' 8'

121 159 79

SE

+50 906.3  
907.21

END APRON +56  
R/W EL 903.46

CONST. LIMITS

3:1

138 140 25

SE

129+13 906.2  
907.39

R/W

ε BIT. ENT.

16'

8' 8' 12.5'

127 149 77

3:1

SE

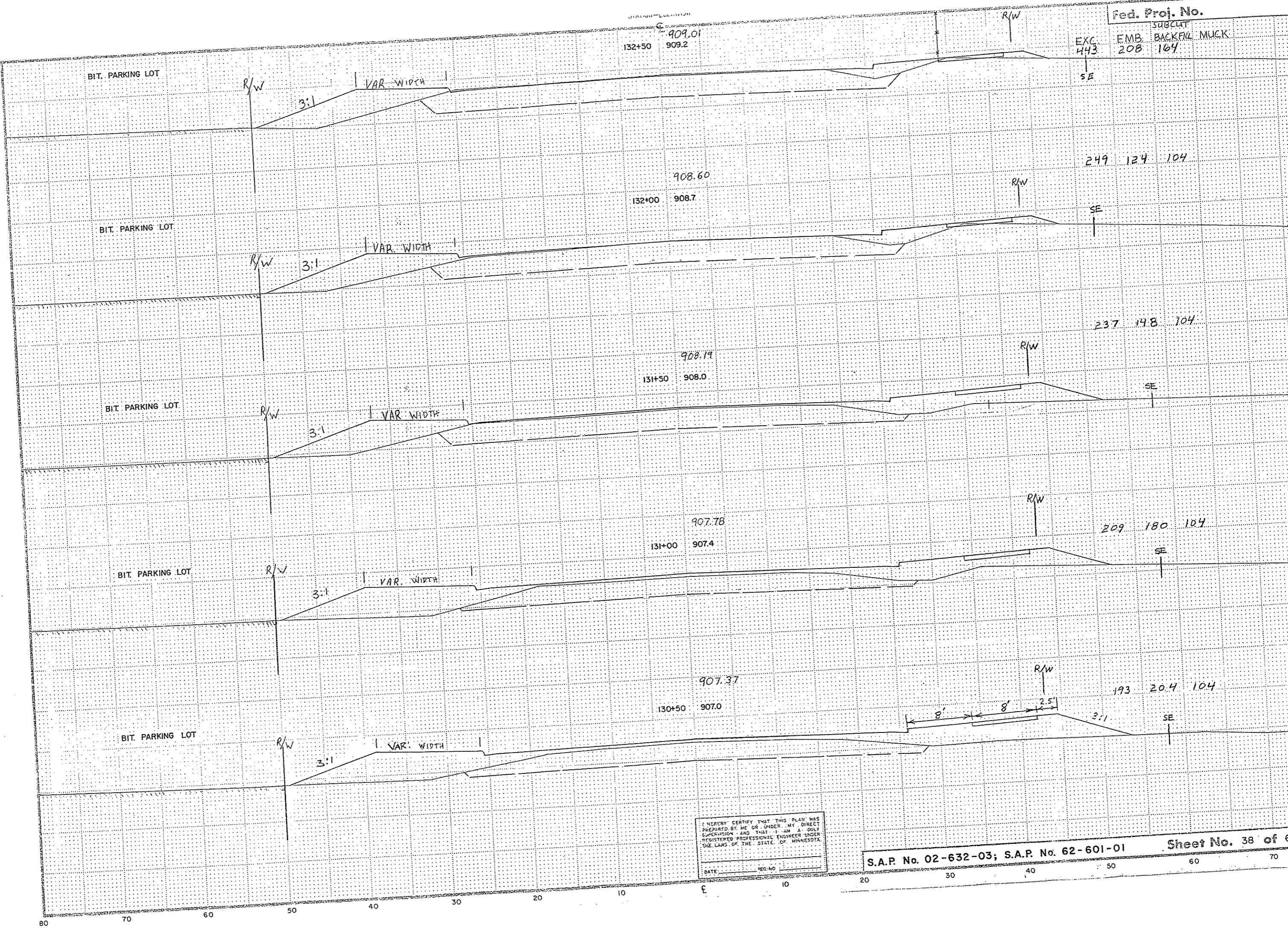
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_

S.A.P. No. 02-632-03; S.A.P. No. 62-601-01

Sheet No. 37 of 60

10 20 30 40 50 60 70

Fed. Proj. No.   
 SUBCUT   
 EXC. 443 EMB. 208 BACKFILL 164 MUCK



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_

S.A.P. No. 02-632-03; S.A.P. No. 62-601-01

Sheet No. 38 of 67

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

Subcut	Exc.	Emb.	Backfill	Muck
	269	113	104	
	SE			

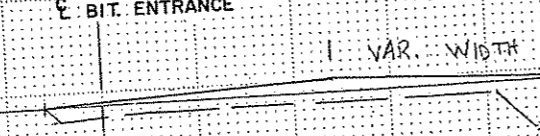
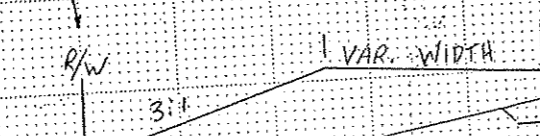
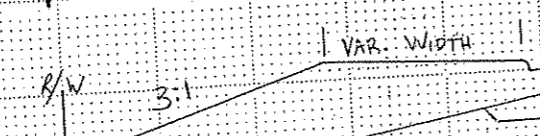
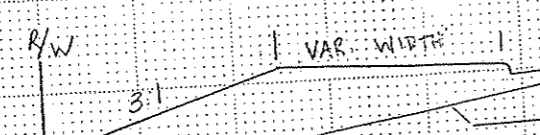
STATION-ELEVATION  
 135+00 910.33  
 910.5

BIT. PARKING LOT

BIT. PARKING LOT

BIT. PARKING LOT

BIT. PARKING LOT



EL. 908.30  
 +95 RELOCATE  
 CONTROL STRUCTURE  
 (SEE PLAN SHEET.)

R/W  
 BIT ENTRANCE

CONST. LIMITS

CONST. LIMITS

SE

+10" 15" APRON  
 EL. 904.8

910.55  
 +50 910.3

910.24  
 134+00 910.1

909.92  
 +61 910.0

909.66  
 133+29 909.8

236 135 104  
 SE

222 150 104  
 SE

199 82 81  
 SE

191 60 66  
 SE

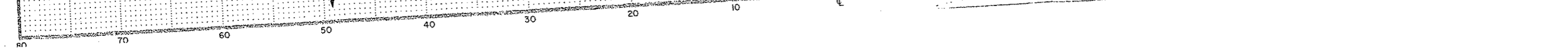
R/W  
 DIRT ENTRANCE

REPLACE IN KIND

I HEREBY CERTIFY THAT THIS PLAN WAS  
 PREPARED BY ME OR UNDER MY DIRECT  
 SUPERVISION AND THAT I AM A DULY  
 REGISTERED PROFESSIONAL ENGINEER UNDER  
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DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_

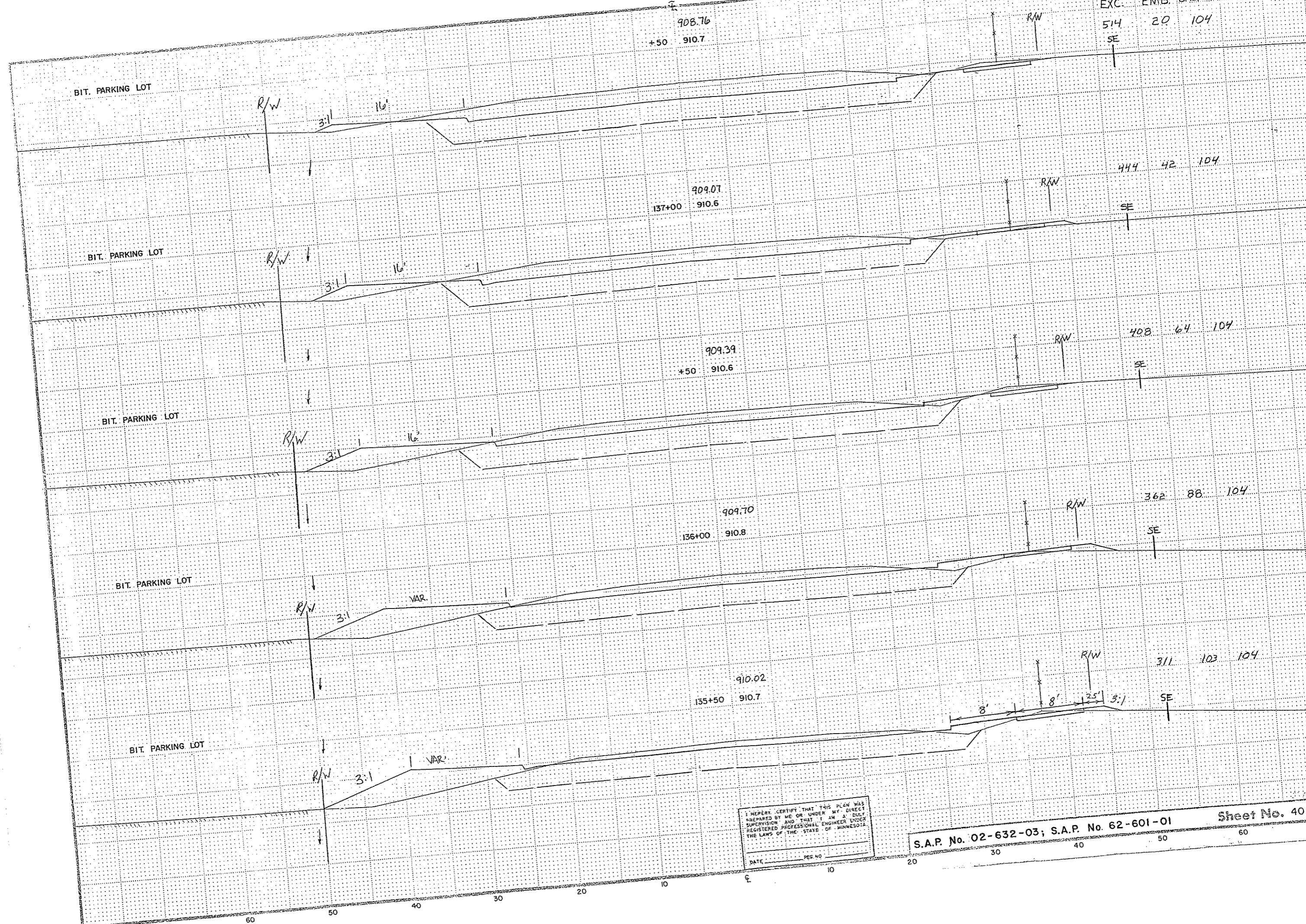
S.A.P. No. 02-632-03; S.A.P. No. 62-601-01





STATION--ELEVATION

Exc.	Emb.	Subcut
514	20	104
SE		

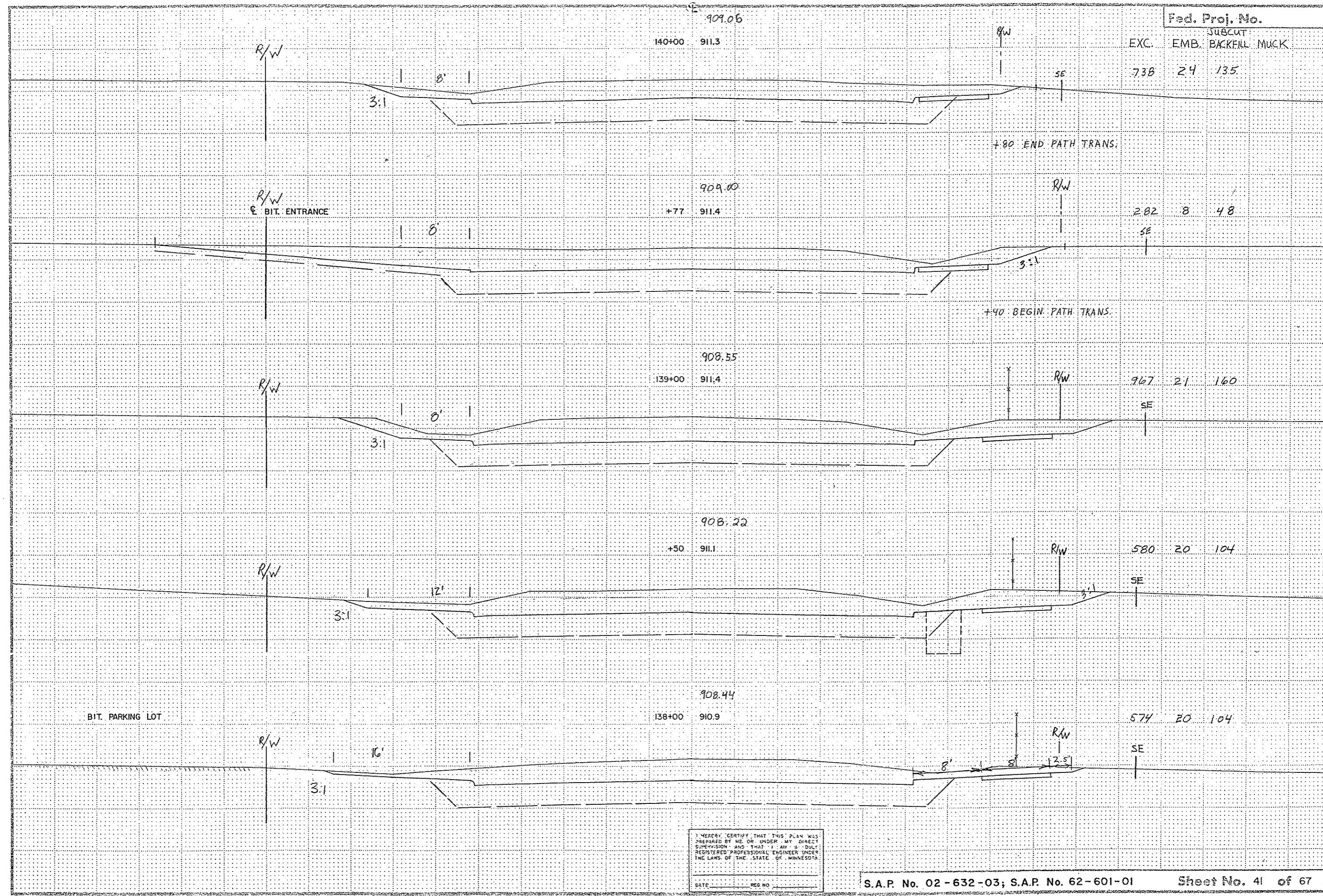


I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_

STATION - ELEVATION

Fed. Proj. No.			
EXC.	EMB.	BACKFILL	MUCK
738	24	135	
282	8	48	
967	21	160	
580	20	104	
574	20	104	



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

142+50 910.1  
907.82

561 98 132

R/W

3:1

MA 123

CB 122

3:1

E DRAINAGE EASEMENT SEE SHEET 65

15" RCP @ -1.0%

PROPOSED 8" WILLIAMS PIPELINE TOP EL. 903.2 ±

24" RCP @ -4.1%

908.32

733 36 131

CLOSE ENT. CONC. ENTRANCE R/W

+87 910.5

TRAILER

3:1

7'

SE

282 13 118

908.72

E G.L. HALL ST.

R/W

+35 910.7

SAWCUT SE

3:1

PROPOSED 8" WILLIAMS PIPELINE TOP EL. 904.6 ±

443 9 86

908.93

W. G.L. HALL ST.

R/W

141+00 910.8

SAWCUT SE

3:1

PROPOSED 8" WILLIAMS PIPELINE TOP EL. 905.2 ±

420 9 79

909.05

TRAILER

BIT. ENTRANCE R/W

140+65 911.0

R/W

SE

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A QUALIFIED REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_

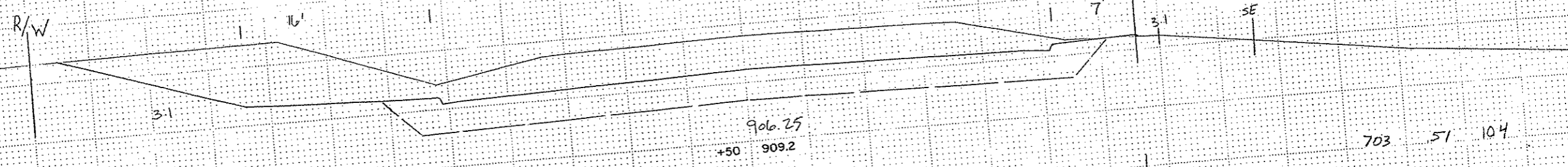
S.A.P. NO. 02-632-03; S.A.P. NO. 62-601-01

Sheet No. 42 of 70

STATION-ELEVATION

145+00 909.0  
906.25

665 19 104



703 51 104



613 119 104



578 170 104



484 167 104

TEMPDRARY GRADE XEBEC ST.  
(-1.39%)  
← FUTURE GRADE (+1.51%±) →

STA. 143+3.7±  
END RADIUS  
XEBEC ST.

+97' PROPOSED @ XEBEC ST. @ 907.45±

STA. 142+56±  
BEGIN RADIUS  
XEBEC ST.

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM AT ALL TIMES A REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_

S.A.P. No. 02-632-03; S.A.P. No. 62-601-01

907.83  
+50 908.0

196 150 104

TRAILER

907.45

147+00 908.0

238 117 104

TRAILER

907.01

+50 908.1

305 80 104

TRAILER

906.65

146+00 908.5

375 47 104

SHED

906.25

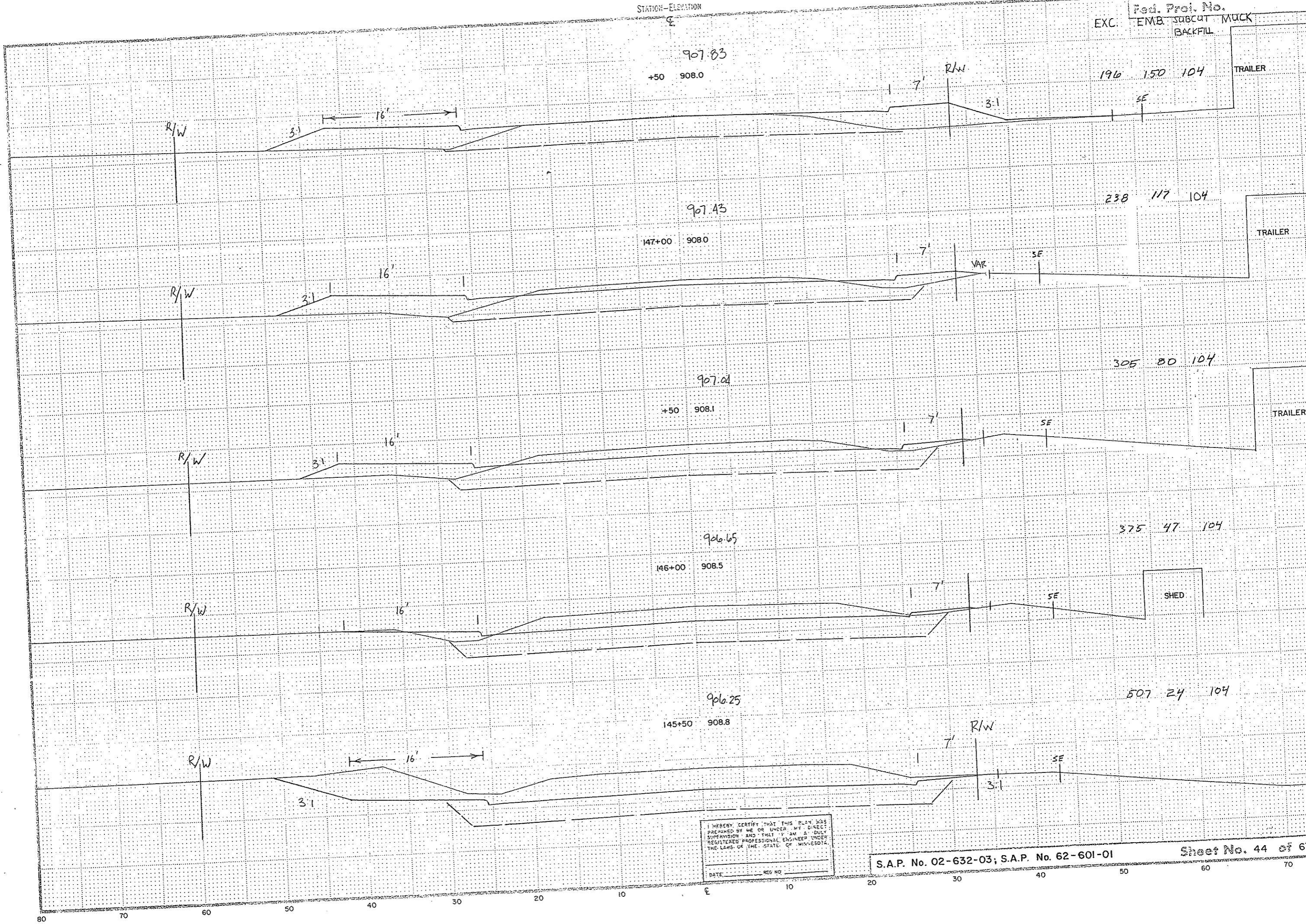
145+50 908.8

507 24 104

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
DATE \_\_\_\_\_ REG NO \_\_\_\_\_

S.A.P. No. 02-632-03; S.A.P. No. 62-601-01

Sheet No. 44 of 67



150+04± END RADIUS  
YALTA ST.

909.63

+81 909.6

R/W

E. G.L. HALL ST.

445 29 162

SE

PROPOSED BOULEVARD YALTA ST.

+51 MATCH YALTA ST.

+63.5± PROPOSED  $\phi$  YALTA ST. @ 909.52

909.30

+46 909.2

PROPOSED  
8" WILLIAMS  
PIPELINE  
TOP EL. 904.8±

224 8 192

W. G.L. HALL ST.

SE

SE

PROPOSED BOULEVARD YALTA ST.

+51 MATCH YALTA ST.

+23± BEGIN RADIUS  
YALTA ST.

909.01

+49+00 908.7

PROPOSED  
8" WILLIAMS  
PIPELINE  
TOP EL. 904.4±

251 90 125

R/W

VAR

SE

908.62

+50 908.2

1 7'

169 180 104

VAR

SE

R/W

908.23

+48+00 907.9

1 7'

168 167 104

R/W

VAR

SE

R/W

18" RCP

I HEREBY CERTIFY THAT THIS PLAN WAS  
PREPARED BY ME OR UNDER MY DIRECT  
SUPERVISION AND THAT I AM A DULY  
REGISTERED PROFESSIONAL ENGINEER UNDER  
THE LAWS OF THE STATE OF MINNESOTA  
DATE \_\_\_\_\_ RES NO \_\_\_\_\_

S.A.P. No. 02-632-03; S.A.P. No. 62-601-01

Sheet No. 45 of 67

STATION-ELEVATION  
E

Fed. Proj. No.

EXC. EMB. SUBCAT. BACKFILL MUCK

853 14 112

909.41

+26 912.1

E BIT. ENTRANCE

R/W

8'

909.47

152+18 912.0

R/W

E DIRT ENTRANCE

SE

152+00

909.87

+44 911.7

1317 22 191

E DIRT ENTRANCE  
CLOSE ENT.  
R/W

8'

909.95

151+00 911.1

443 16 91

R/W

3:1

VAR

SE

909.91

150+50 910.6

341 26 104

R/W

8'

R/W

3:1

SE

GARAGE

I HEREBY CERTIFY THAT THIS PLAN WAS  
PREPARED BY ME OR UNDER MY DIRECT  
SUPERVISION AND THAT I AM A DULY  
REGISTERED PROFESSIONAL ENGINEER UNDER  
THE LAWS OF THE STATE OF MINNESOTA.

DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_

S.A.P. No. 02-632-03; S.A.P. No. 62-601-01

Sheet No. 46 of 67

80

70

60

50

40

30

20

10

E

10

20

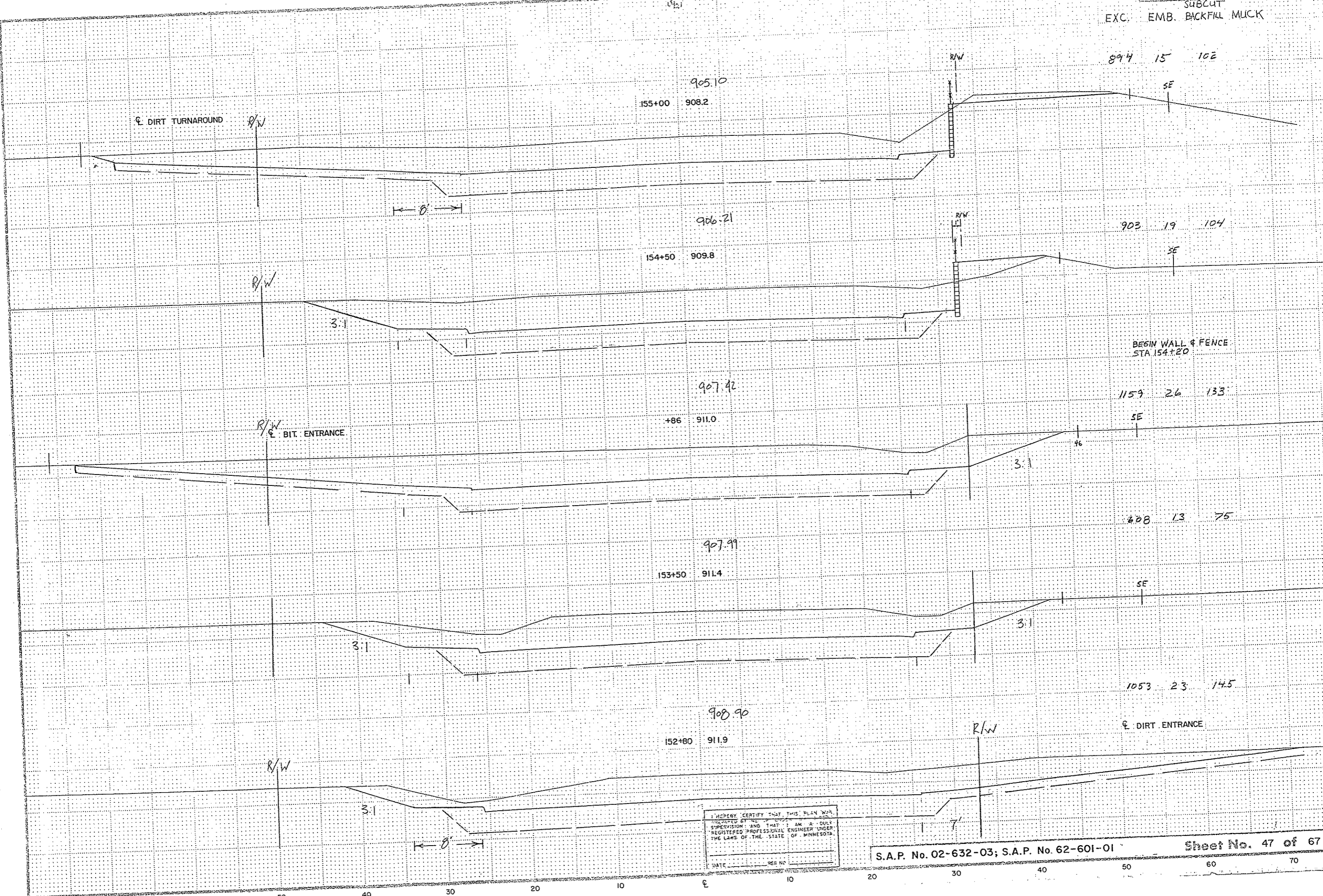
30

40

50

60

70



I HEREBY CERTIFY THAT THIS PLAN WAS  
 PREPARED BY ME OR UNDER MY  
 SUPERVISION AND THAT I AM A FULLY  
 REGISTERED PROFESSIONAL ENGINEER UNDER  
 THE LAWS OF THE STATE OF MINNESOTA.  
 DATE \_\_\_\_\_ PER NO. \_\_\_\_\_

S.A.P. No. 02-632-03; S.A.P. No. 62-601-01



STATION-ELEVATION

Fed. Proj. No.  
SUBCUT  
EMB. BACKFILL MUCK

+75 END PHASE I

897.14  
+60 897.4

219 47 83

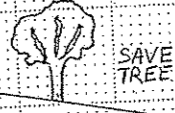
R/W  
BIT ENTRANCE

890.15  
157+14 899.7

316 50 95

BIT ENTRANCE

R/W



SAVE TREE

900.93  
+50 902.5

574 43 133

R/W

3:1

902.46  
156+00 904.5

576 22 104

R/W

VAR

903.88  
155+49 906.4

756 20 1106

DIRT ENTRANCE  
REPLACE IN KIND

R/W

8'

I HEREBY CERTIFY THAT THIS PLAN WAS  
PREPARED BY ME OR UNDER MY DIRECT  
SUPERVISION AND THAT I AM A DULY  
REGISTERED PROFESSIONAL ENGINEER UNDER  
THE LAWS OF THE STATE OF MINNESOTA.  
DATE: \_\_\_\_\_ REG. NO: \_\_\_\_\_

S.A.P. NO. 02-632-03; S.A.P. NO. 62-601-01

Sheet No. 48 of 67

60 70

STATION-ELEVATION

BIT. PARKING LOT

R/W

890.13

159+72 889.0

LEXINGTON AVE

192 63 58 391

MUCK EXCAVATION

REMOVE PAVEMENT

892.29

+99 891.4

BIT. ENTRANCE

R/W

BEGIN MUCK EXCAVATION STA. 158+75

341 126 151 502

893.74

+57 893.0

BIT. PARKING LOT

R/W

VAR.

163 90 102 24

893.99

+50 893.3

R/W

VAR.

END WALL & FENCE STA. 158+20

198 67 104

895.74

158+00 895.5

R/W

VAR.

8'

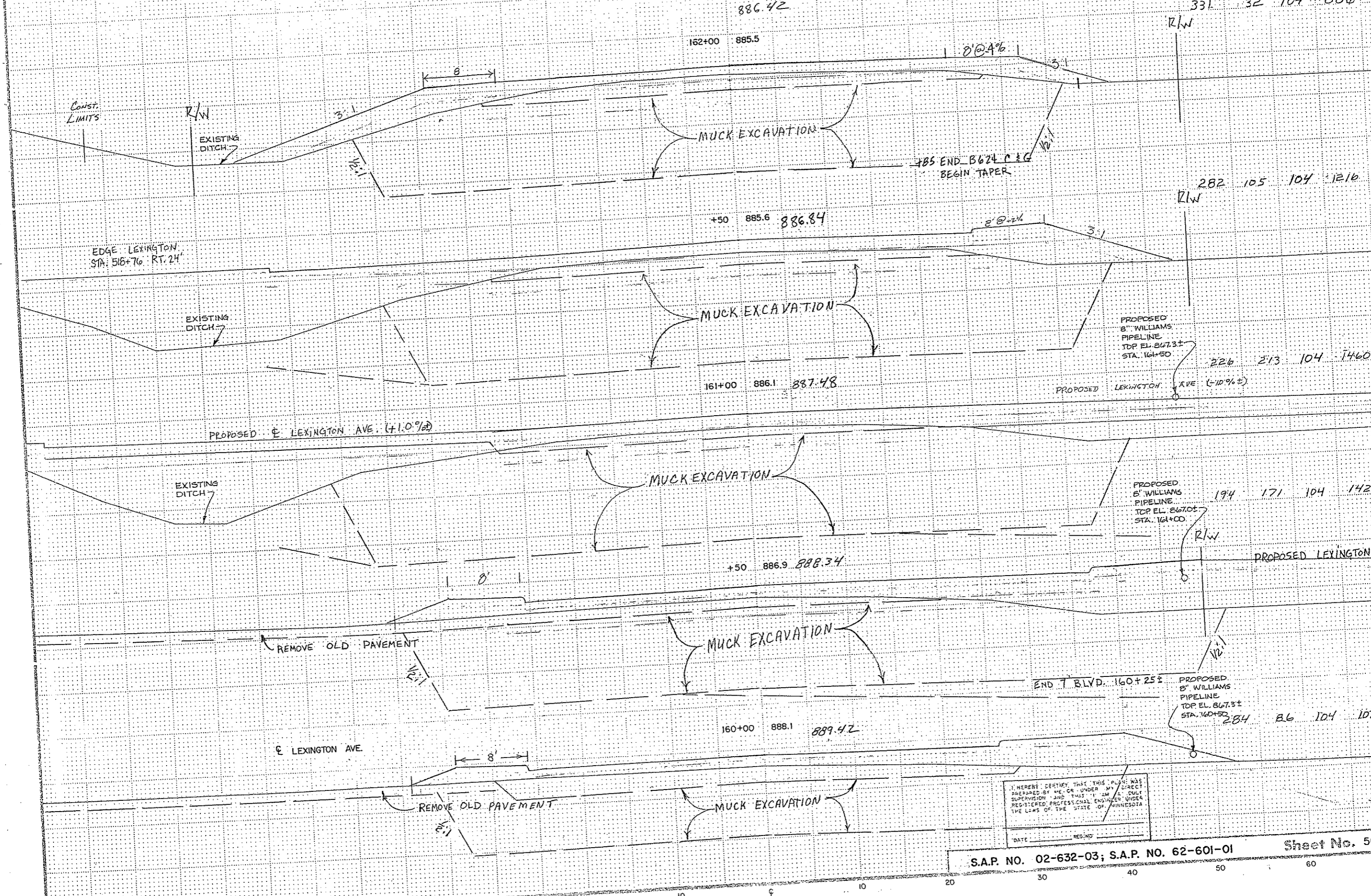
157+75 BEGIN PHASE II

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

S.A.P. NO. 02-632-03; S.A.P. NO. 62-601-01

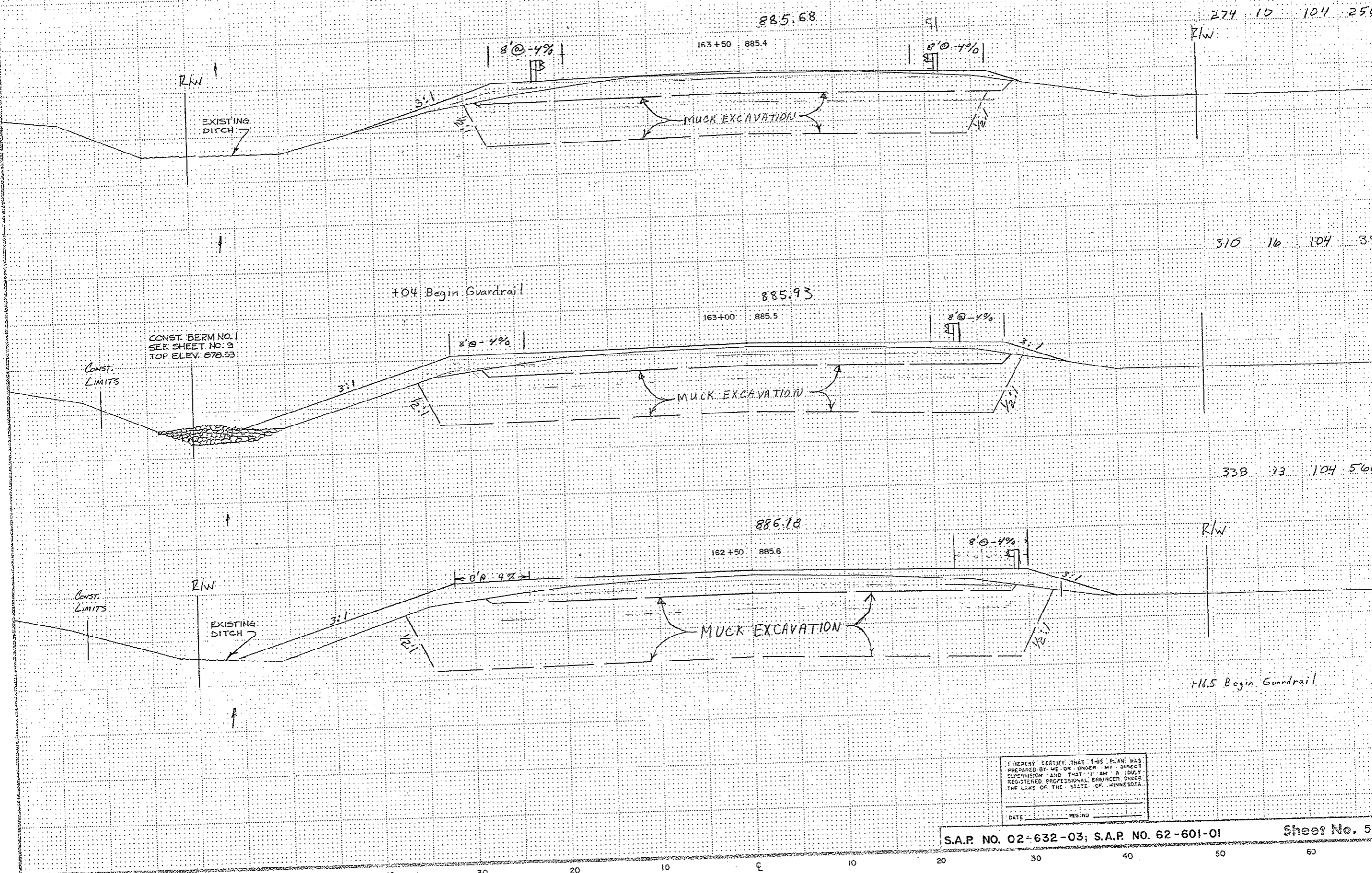
Sheet No. 49 of 67

331 32 104 886



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_

R/W

R/W

END BRIDGE

+73 885.9

BEGIN BRIDGE

+54 885.5

MATCH EXISTING AT BRIDGE

END MUCK EXCAVATION  
STATION 164+50

254 2 104 82

R/W

R/W

8' @ -4%

164+00 885.4 885.42

8' @ -4%

MUCK EXCAVATION

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

DATE \_\_\_\_\_ SEC. NO. \_\_\_\_\_

STATION-ELEVATION

FUTURE  
450+00 886.7

EXISTING  
R/W

PROP  
R/W

EXISTING  
R/W

PROP  
R/W

FUTURE  
509+00 885.4

EXISTING  
R/W

PROP  
R/W

EXISTING  
R/W

PROP  
R/W

FUTURE  
+50 882.9

EXISTING  
R/W

PROP  
R/W

EXISTING  
R/W

PROP  
R/W

FUTURE  
508+00 881.5

EXISTING  
R/W

PROP  
R/W

PROP  
R/W

SWAMP

LEXINGTON AVE.

S.A.P. NO. 02-632-03; S.A.P. NO. 62-601-01

Sheet No. 53 of 67

COPY EQUIPMENT FROM 41 1388

80

70

60

50

40

30

20

10

0

10

20

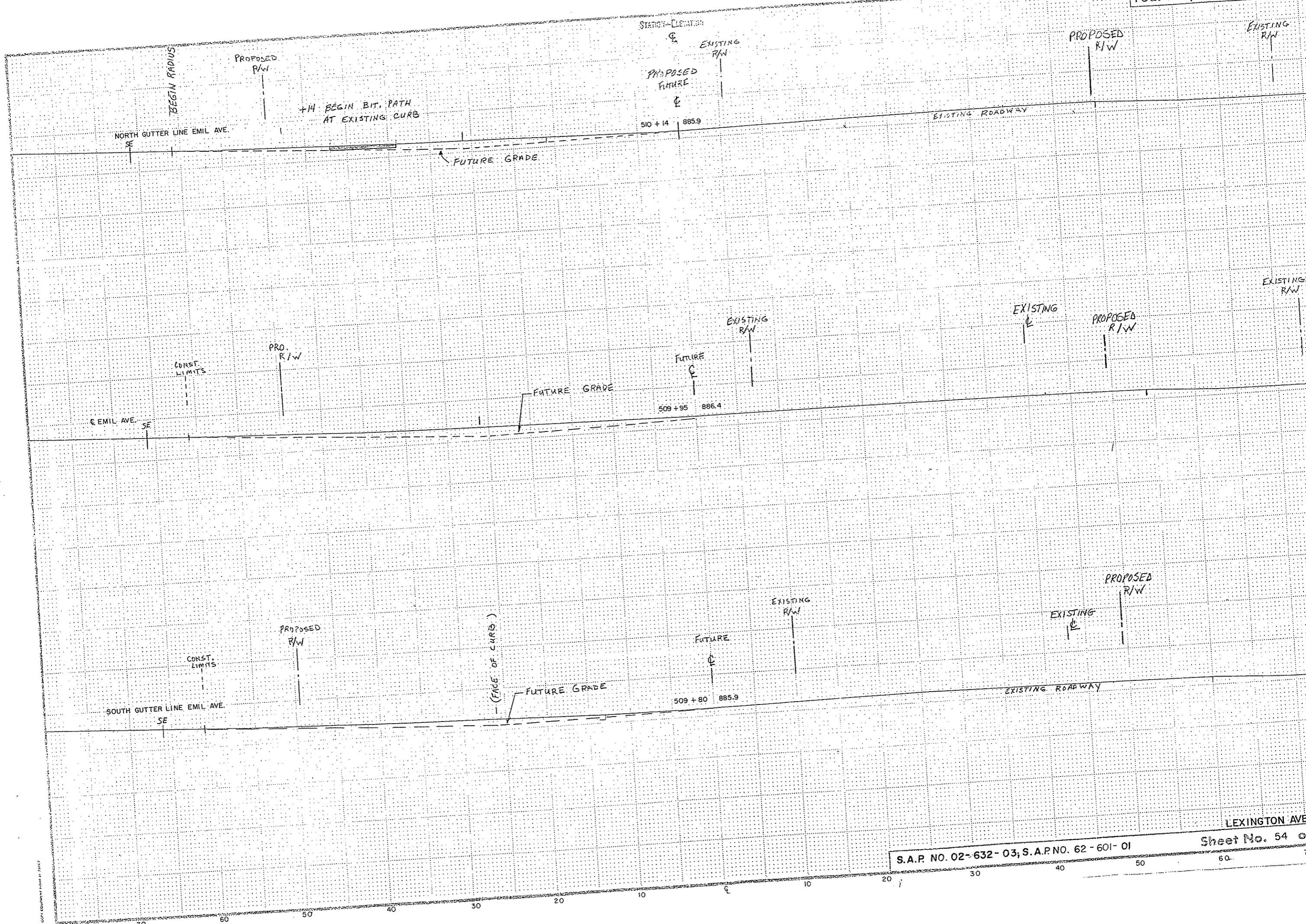
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40

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60

70



S.A.P. NO. 02-632-03; S.A.P. NO. 62-601-01

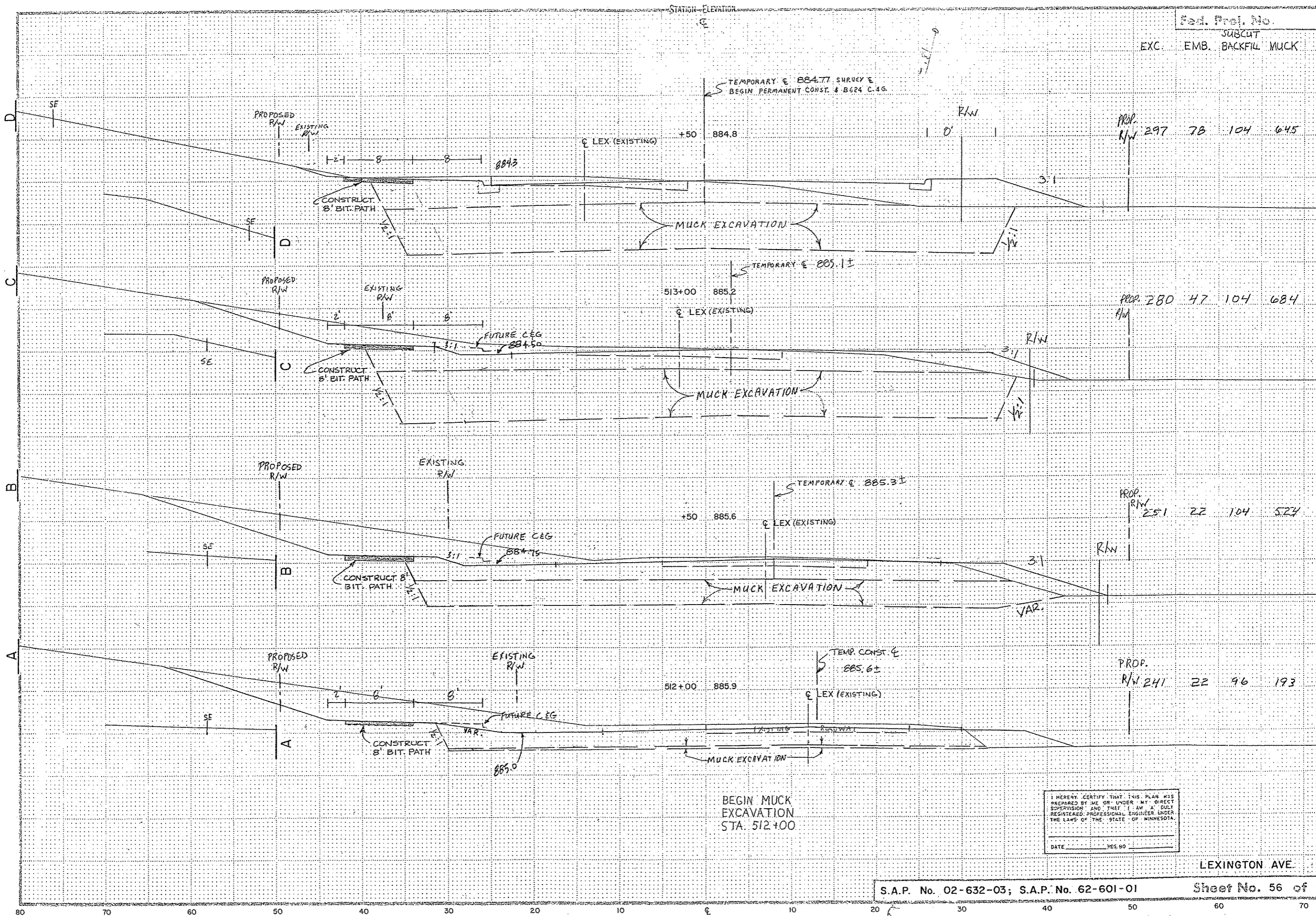
Sheet No. 54 of 67

COPY EQUIPMENT FROM 47 2883

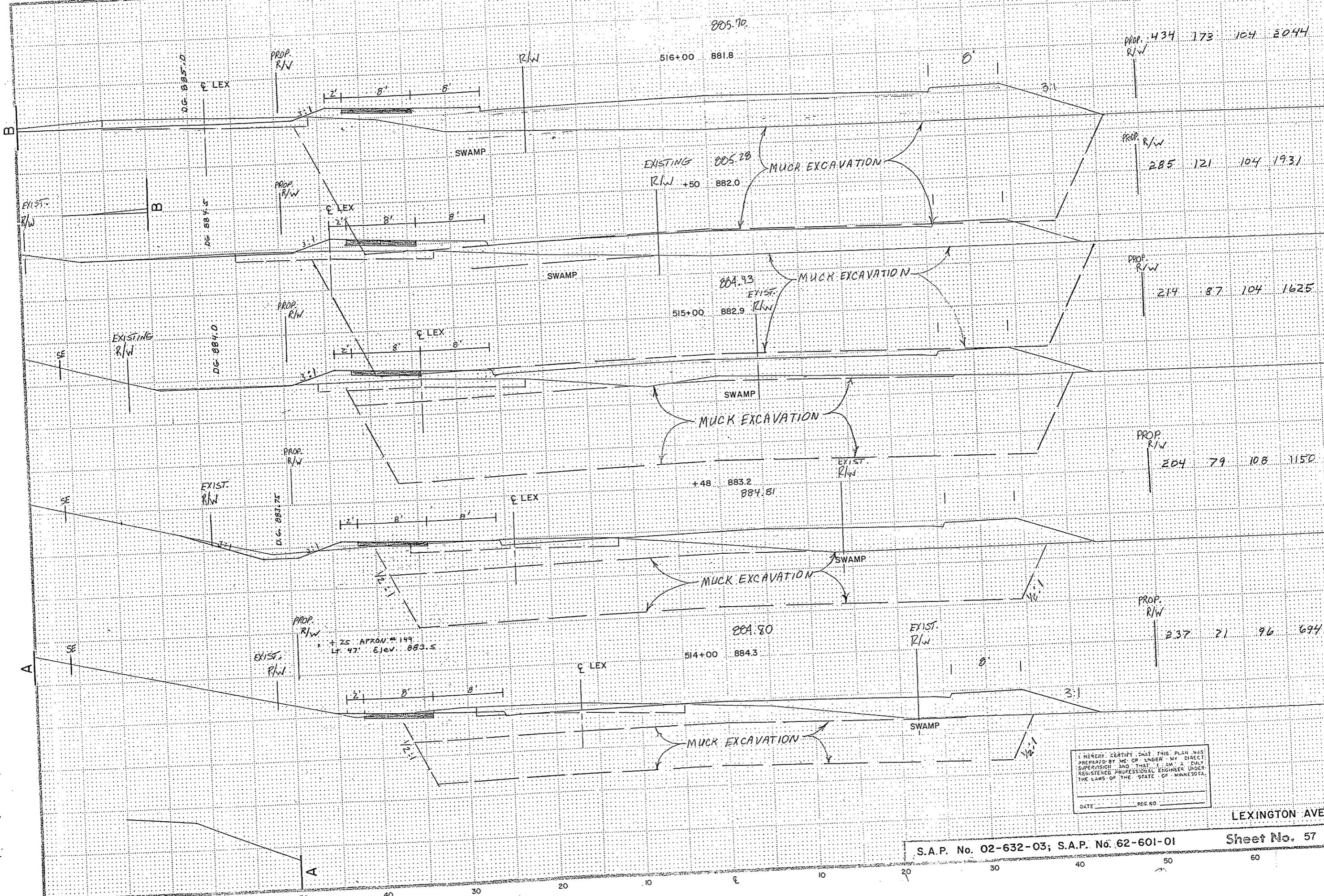
RD







SYMBOL - ELEVATION



PROP. R/W 434 173 104 2044

PROP. R/W 285 121 104 1931

PROP. R/W 214 87 104 1625

PROP. R/W 204 79 108 1150

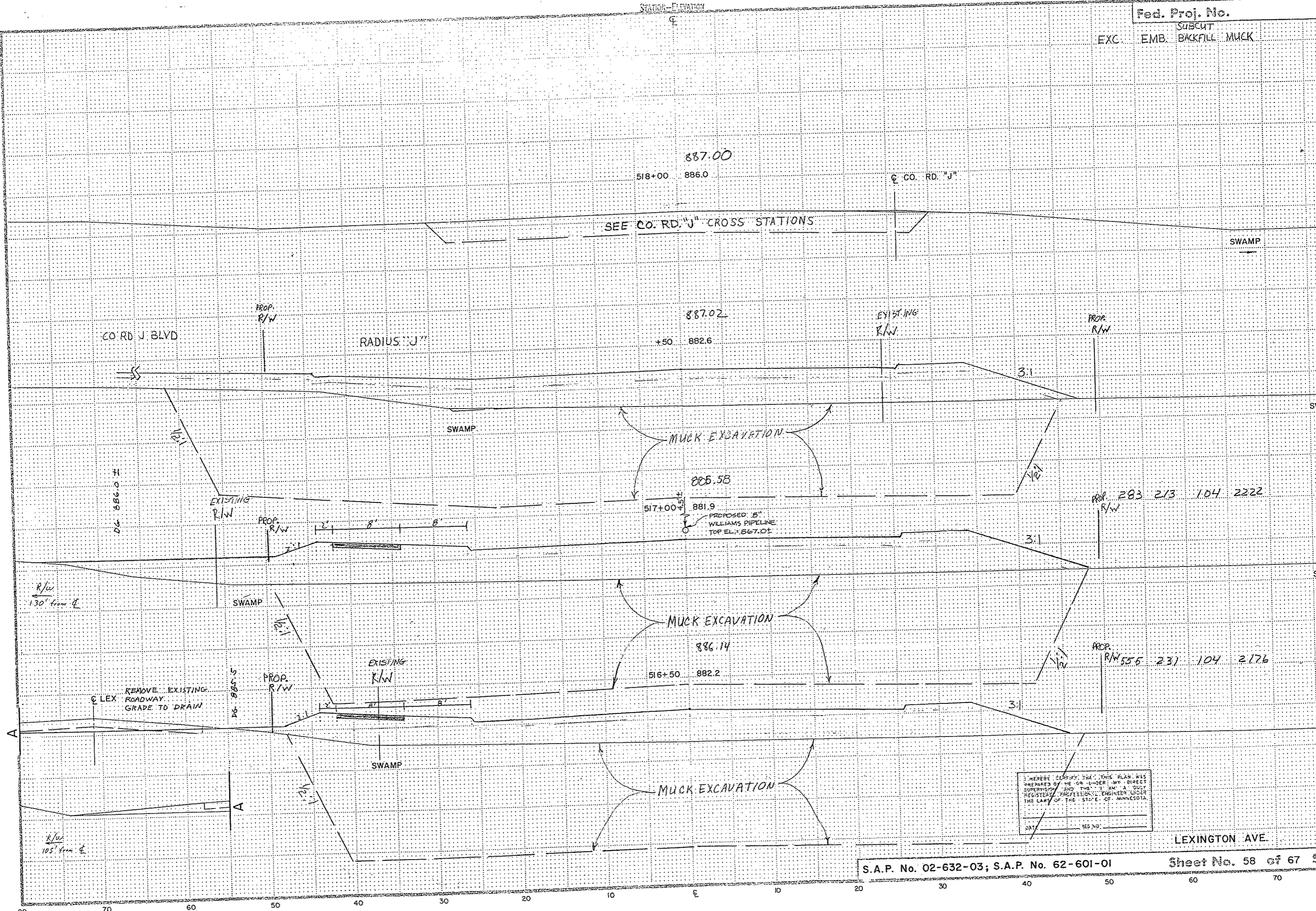
PROP. R/W 237 71 96 694

+25' APRON # 149  
4' 47" Elev. 883.5

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_

STATION - ELEVATION



HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE \_\_\_\_\_ YES NO \_\_\_\_\_

STATION-ELEVATION

END MUCK EXCAVATION  
STATION 520+05

325 45 104

349 53 104 191

315 175 104 503

266 379 114 745

279

R/W  
15' from  
E

R/W  
34' from  
E

R/W  
42' from  
E

SEE CO. RD. J CROSS  
SECTIONS FOR LIMITS

87.0±

86.5±

86.0±

85.5±

520+00 888.43  
887.5

+50 887.75  
885.9

519+00 887.11  
885.3

518+50 886.84  
877.9

100 LF. EXISTING 24" R.C.P @ 1.17% STA. 518+55±

I HEREBY CERTIFY THAT THIS PLAN WAS  
PREPARED BY ME OR UNDER MY DIRECT  
SUPERVISION AND THAT I AM A DULY  
REGISTERED PROFESSIONAL ENGINEER UNDER  
THE LAWS OF THE STATE OF MINNESOTA.  
DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_

STATION-ELEVATION  
 E

R/W

R/W 284 72 115

522+00 891.13 891.2  
 TEMP. CONST. E  
 E LEX  
 0% 2% 4% 3:1

259 53 106

R/W

R/W

E LEX +50 890.5 890.45  
 TEMP. CONST. E  
 E LEX  
 0% 2% M.H. 4% 5:1

261 36 104

CONST. LIMITS

E LEX

R/W

521+00 889.5 889.78  
 TEMP. CONST. E  
 E LEX  
 0% 2% 4% 3:1

270 39 104

SUBCUT FULL WIDTH FOR FUTURE CONSTRUCTION. BEGIN TEMP. CONST. RT.

AGGREGATE SHOULDER

E LEX

R/W

520+50 889.10 888.6

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
 DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_

LEXINGTON AVE.

STATION - ELEVATION

EARTHWORK SUMMARY - PHASE I \*

	EXC. ①	EMB.	SUBCUT BACKFILL	MUCK EXC.
TOTALS	38,133 C.Y.	13,701 C.Y.	12,629 C.Y.	0 C.Y.
EMBANKMENT		13,701 C.Y.		
SUBCUT FILL		+12,629 C.Y.		
		26,330 C.Y.		
		x 1.3		
TOTAL FILL		34,229 C.Y.		
EXCAVATION	38,133 C.Y.			
- FILLS	-34,229 C.Y.			
EXCESS		3,904 C.Y.		
SUBGRADE CORRECTION		-1,613 C.Y.		
STA 115+00 To STA 118+50		2,291 C.Y. EXCESS		

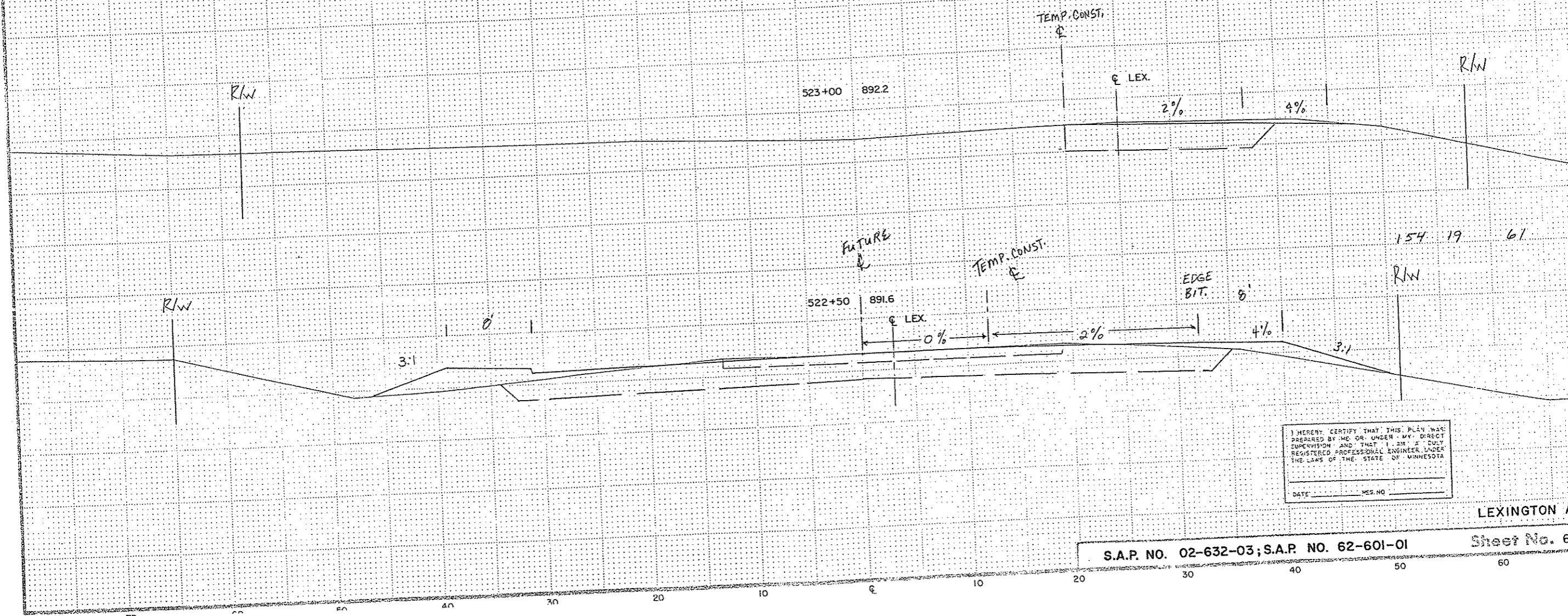
\* PHASE I - STA. 101+84 To STA. 157+75

EARTHWORK SUMMARY - PHASE II

	EXC. ①	EMB.	SUBCUT BACKFILL	MUCK EXC.
TOTALS	9,288 C.Y.	3,038 C.Y.	3,451 C.Y.	23,842 C.Y.
EMBANKMENT		3,038 C.Y.		
SUBCUT FILL		+3,451 C.Y.		
		6,489 C.Y.		
		x 1.3		
TOTAL FILL		8,436 C.Y.		
EXCAVATION	9,288 C.Y.			
- FILLS	-8,436 C.Y.			
EXCESS		852 C.Y. EXCESS		
MUCK EXCAV.	23,842 C.Y.			
EXCESS EXC.	-852 C.Y.			
EXCESS MUCK		22,990 C.Y.		
		x 1.3		
		29,888 C.Y. (L.V.)		

\* PHASE II - STA. 157+75 To STA. 164+54 & LEXINGTON AVENUE

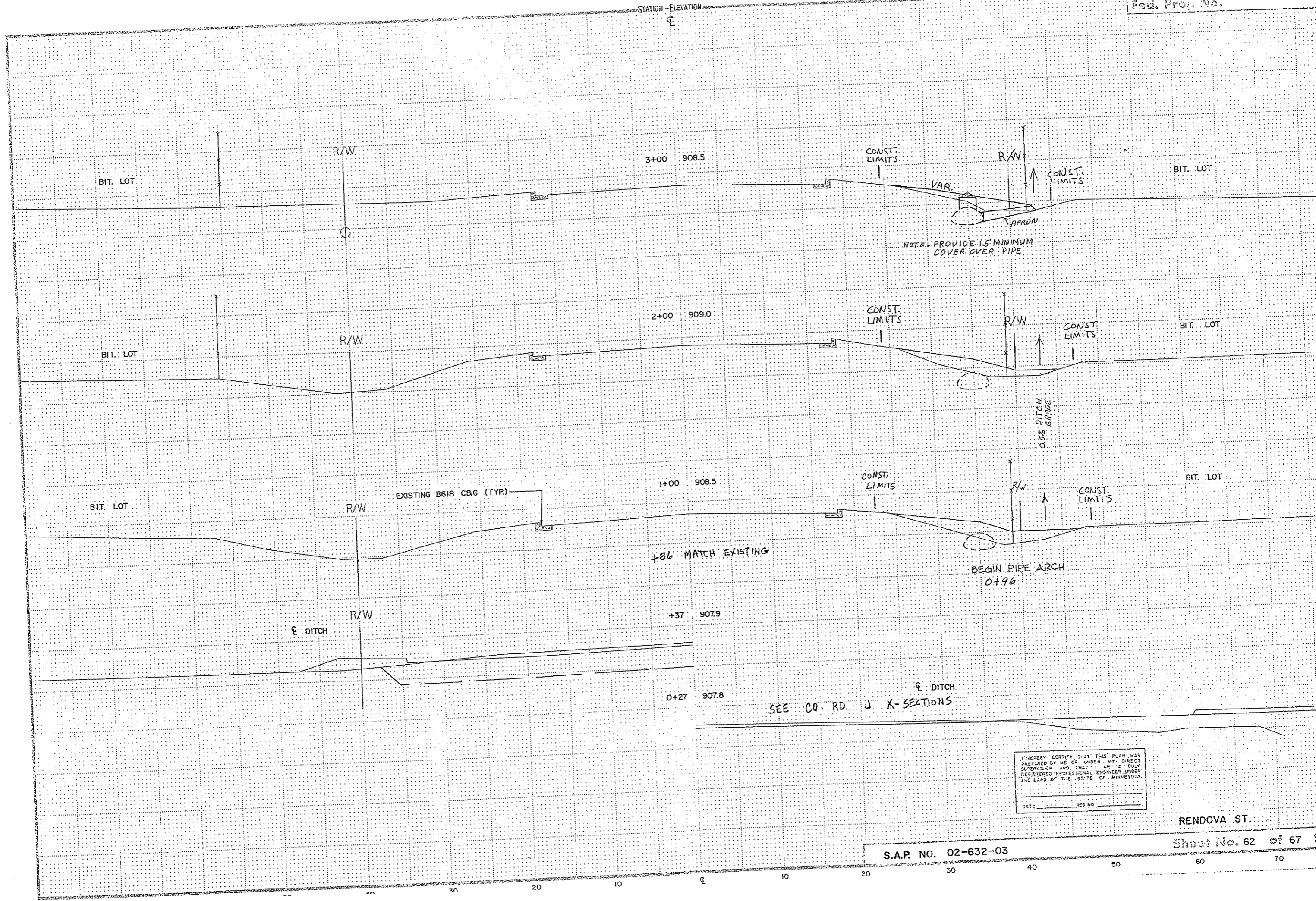
① EXCAVATION QUANTITIES INCLUDE INPLACE BITUMINOUS SURFACE - APPROX. 1962 CY TOTAL FOR PROJECT. MATERIAL SHALL BE DISPOSED OF OUTSIDE THE R/W WITH NO ADDITIONAL COMPENSATION.



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

DATE \_\_\_\_\_ MES. NO. \_\_\_\_\_

STATION—ELEVATION  
E



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A ONLY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE \_\_\_\_\_ RES NO \_\_\_\_\_

RENDOVA ST.

S.A.P. NO. 02-632-03

Sheet No. 62 of 67 S

60 70

STATION-ELEVATION

+32 906.9

EXISTING 48" C.M.P.  
BEGINS 6+43  
CONST. LIMITS

T.C.

R/W

3:1

EXISTING  
48" RCP

6+00 907.0

R/W

CLEAR DITCH  
HERE

BIT. PARKING L

END PIPE ARCH  
5+38

BLDG.

5+00 907.5

CONST. LIMITS

VAR.

CONST. LIMITS

R/W

+34 907.9

NOTE: PROVIDE 1.5' MINIMUM  
COVER OVER PIPE  
CONST. LIMITS

VAR.

CONST. LIMITS

CONC. ENTRANCE

BIT. LOT

R/W

4+00 908.1

CONST. LIMITS

VAR.

CONST. LIMITS

R/W

EXISTING  
6618 C&G (TYP)

BIT. LOT

I HEREBY CERTIFY THAT THIS PLAN WAS  
PREPARED BY ME OR UNDER MY DIRECT  
SUPERVISION AND THAT I AM A FULLY  
REGISTERED PROFESSIONAL ENGINEER UNDER  
THE LAWS OF THE STATE OF MINNESOTA.  
DATE \_\_\_\_\_ RES. NO. \_\_\_\_\_

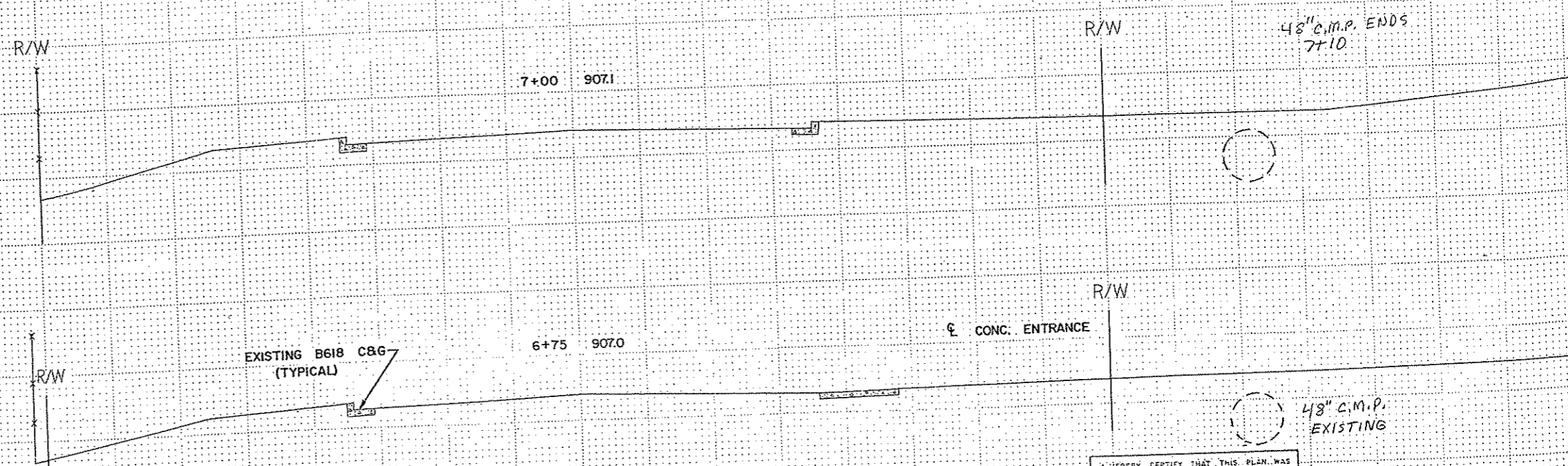
RENDOVA ST.

S.A.P. NO. 02-632-03

Sheet No. 63 of 67



STATION ELEVATION  
E



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_

RENDOVA ST.

S.A.P. No. 02-632-03

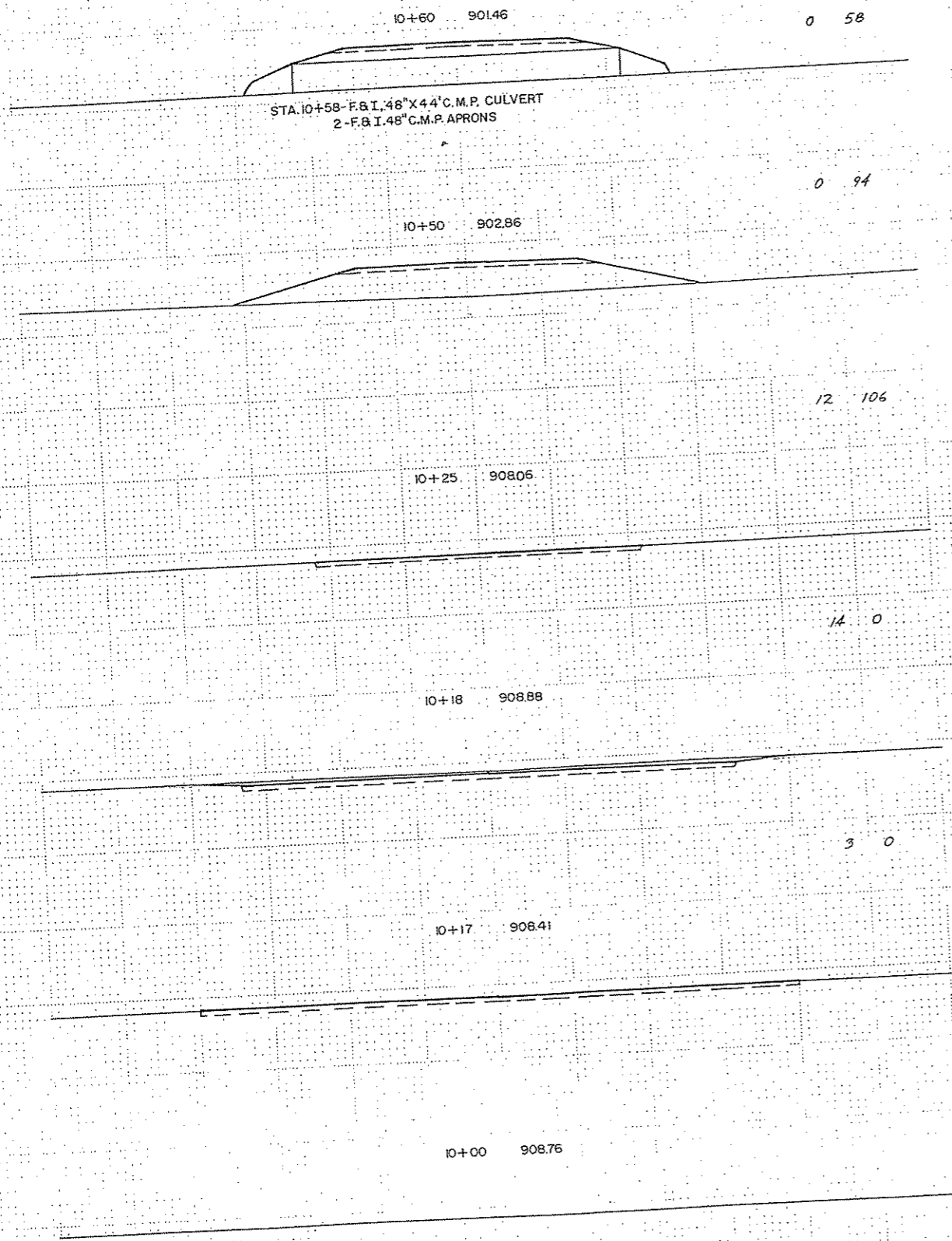
Sheet No. 64 of 67 S

EXCAVATION EMBANKMENT

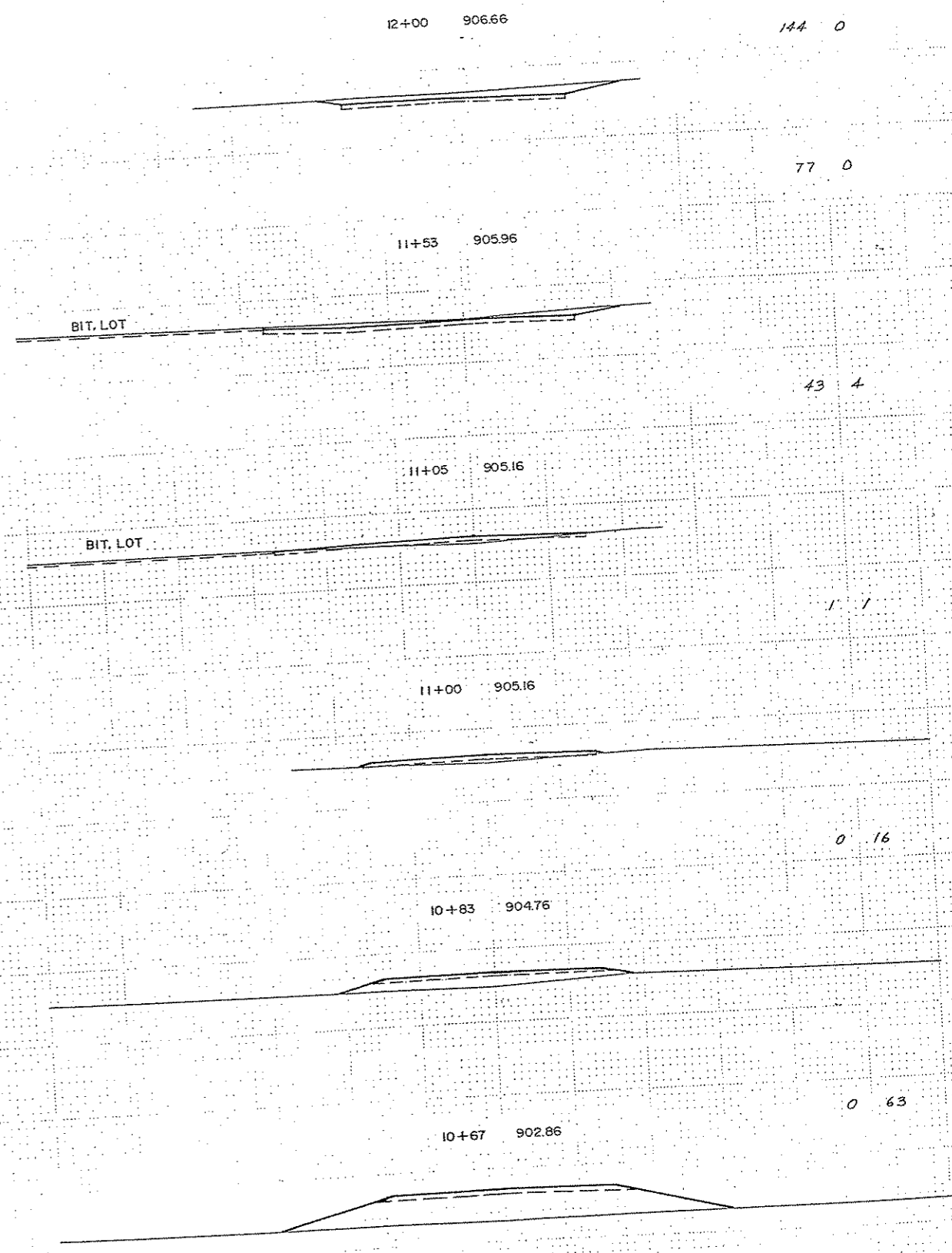
Sub-Totals Cu. Yds. Sub-Totals

EXCAVATION EMBANKMENT

Sub-Totals Cu. Yds. Sub-Totals



STA. 10+58 - F&I, 48" X 44' C.M.P. CULVERT  
2 - F&I, 48" C.M.P. APRONS

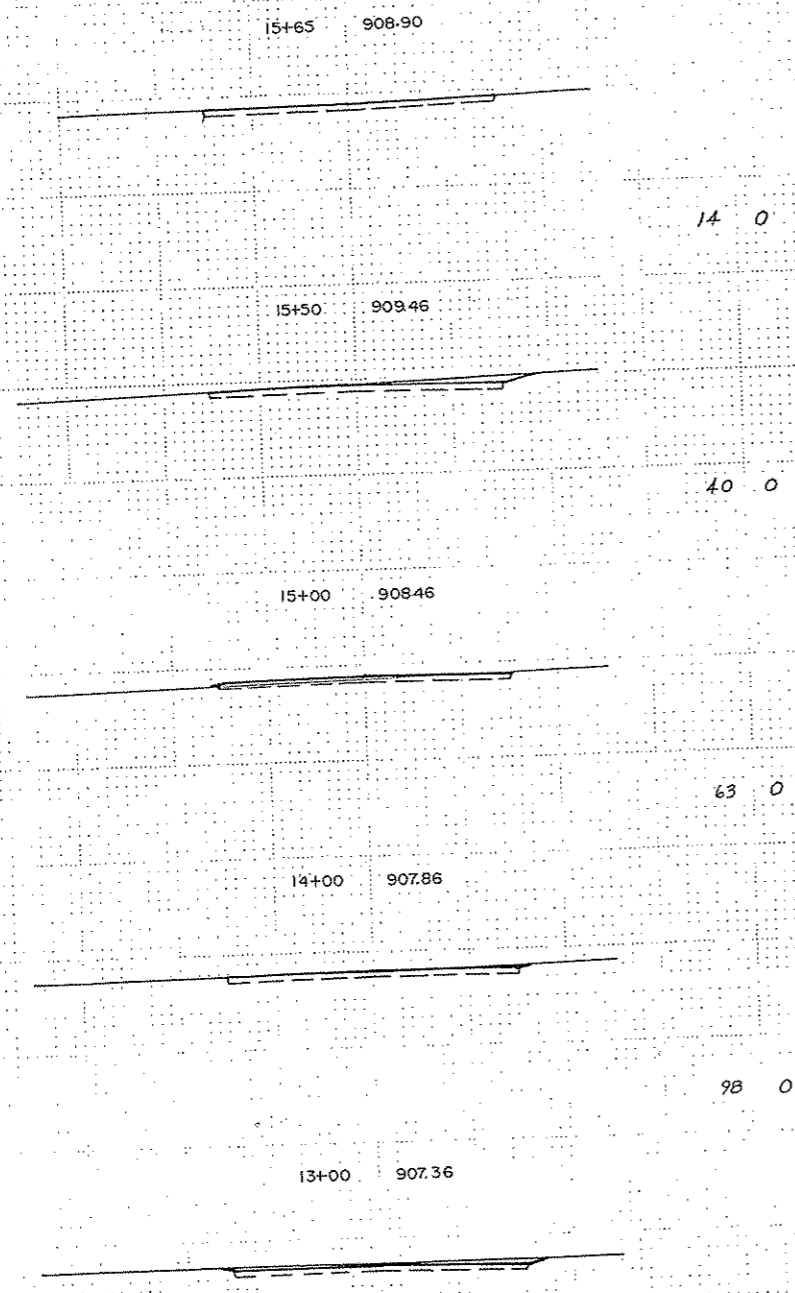


SCALE: 1" = 10'

RENDOVA ST. E - ALIGN.

EXCAVATION EMBANKMENT

Sub-Totals      Cu.    Cu.  
                    Yds.    Yds.      Sub-Totals

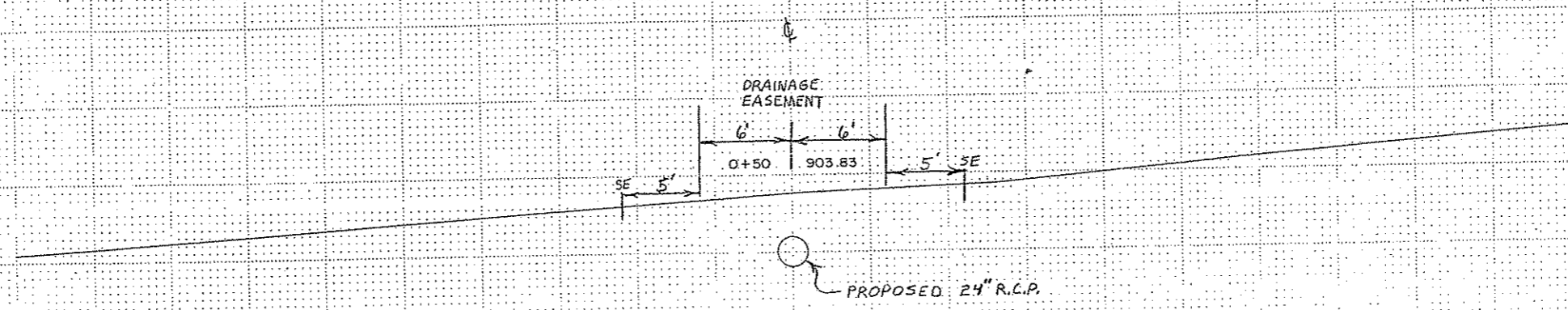


TEMPORARY ENTRANCE  
EARTHWORK BALANCE  
COMMON EXC.      509 C.Y.  
REGULAR FILL      342 C.Y.

SCALE: 1" = 10'

RENDOVA ST. E. — ALIGN.

STATION-ELEVATION



0+18 909.83

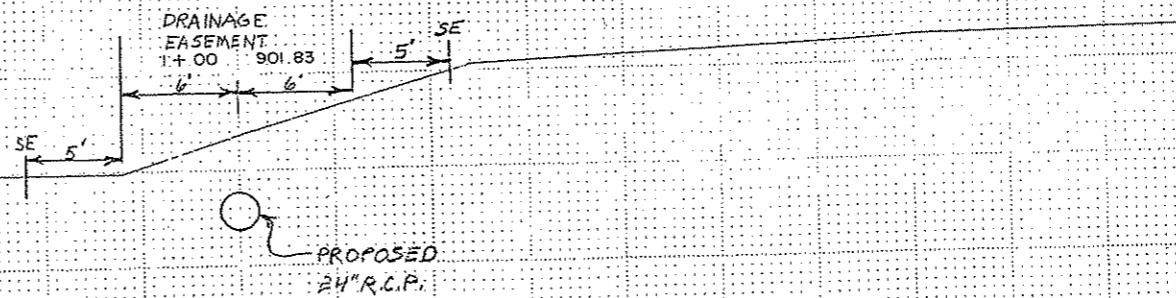
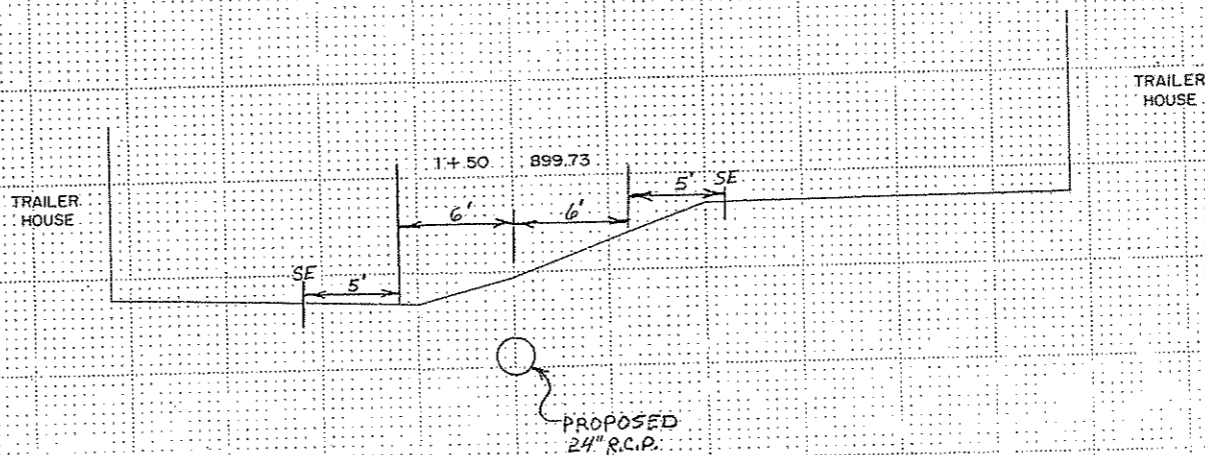
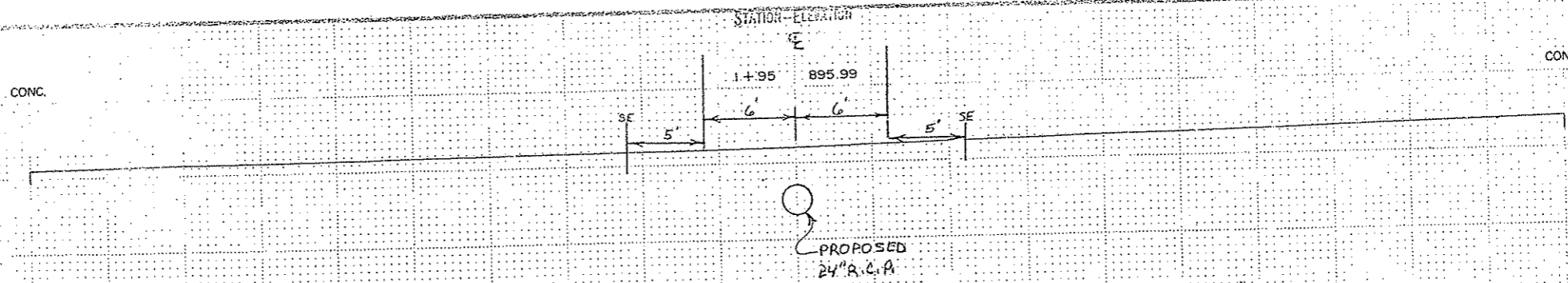
0+00 910.13  
(142+50 CO. RD. 'J')

EASEMENT STA. 142+50 RT.

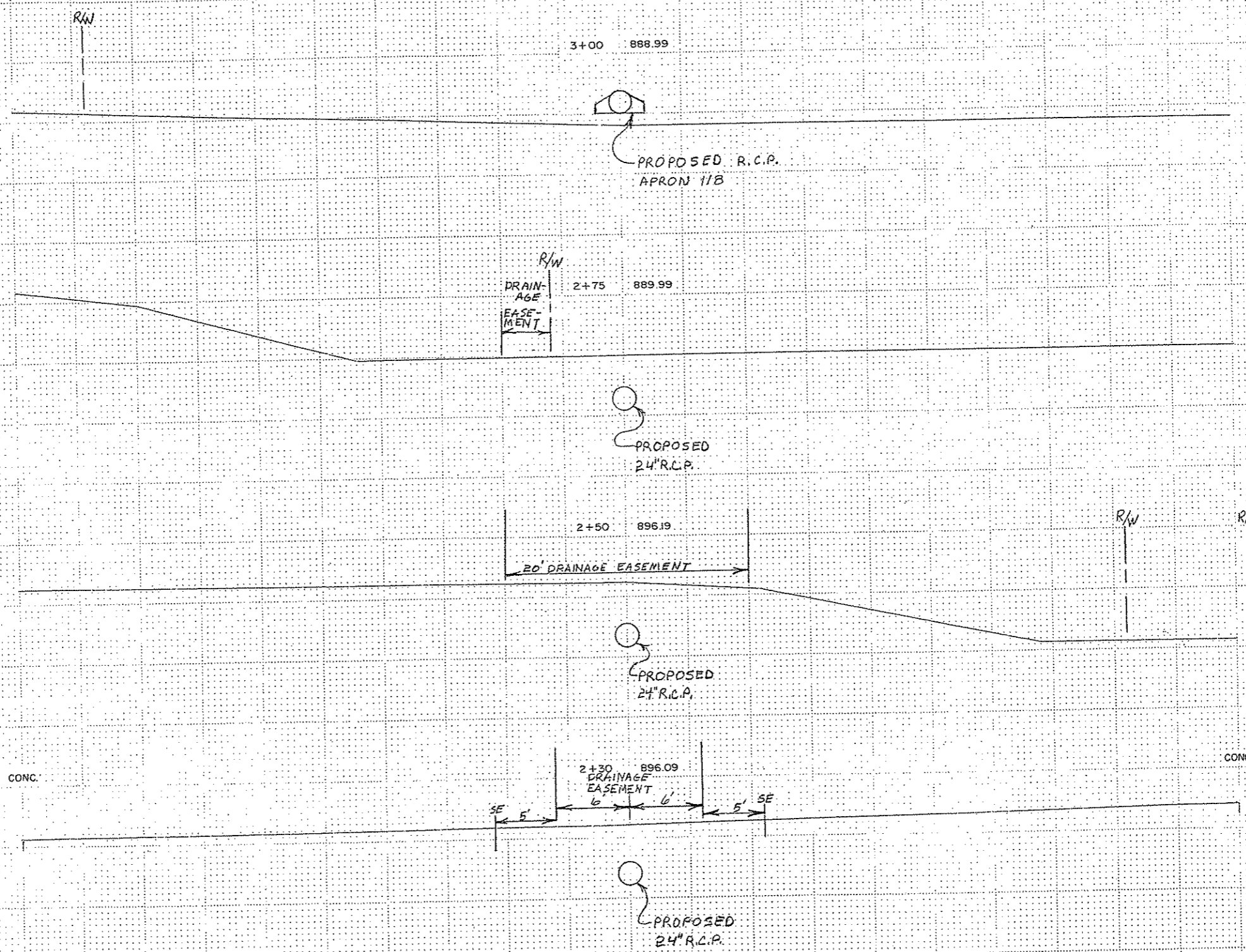
S.A.P. NO. 02-632-03; S.A.P. NO. 62-601-01

Sheet No. 65 of 67 5h

DATE: 11/12/03



EARTHWORK SUMMARY  
SEE SHEET 61



EASEMENT STA. 142+50

S.A.P. NO. 02-632-03; S.A.P. NO. 62-601-01

Sheet No. 67 of 67